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ABSTRACT

This monograph addresses issues of concern to primary health care practitioners, policy makers, and evaluators wishing to broaden access to quality substance abuse prevention services for Pacific Islanders. It is devoted exclusively to health issues affecting Pacific Islanders, who often lack access to comprehensive health care because of financial, language, and cultural barriers. It discusses cultural accessibility as a tool to evaluate how effectively health services respond to the unique needs of Pacific Islanders. The eight papers are: (1) "Health and Well-Being for Pacific Islanders: Status, Barriers, and Resolutions" (Noreen Mokuau); (2) "Reality and Vision: A Cultural Perspective in Addressing Alcohol and Drug Abuse among Pacific Islanders" (Noreen Mokuau); (3) "Psychometric Evaluation of Measures for Assessing the Effectiveness of a Family-Focused Substance Abuse Prevention Intervention among Pacific Island Families and Children" (Velma A. Kameoka); (4) "Ho'omau Ke Ola: 'To Perpetuate Life as It Was Meant To Be'" (Ho'oipo DeCambra, Wende Elizabeth Marshall, and Mari Ono); (5) "Culture as a Protective Factor in Two Prevention Programs for Hawaiians" (Abbie Nepeahi Kupuna, Terry Kelly, Paula-Ann Burgess, David Kamiyama, and Noreen Mokuau); (6) "Samoans in California: A Perspective on Drug Use and Other Health Issues" (Kawen T. Young and Kenneth Elifasa Galea'i); (7) "Chamorros: Recognizing a People and Their Issues with Substance Abuse" (Noreen Mokuau and Lisalinda Natividad); and (8) "Drugs in Micronesia" (Jay Dobbin, Innocente I. Oneisom, and Michael Mason). (Papers contain references.) (SM)

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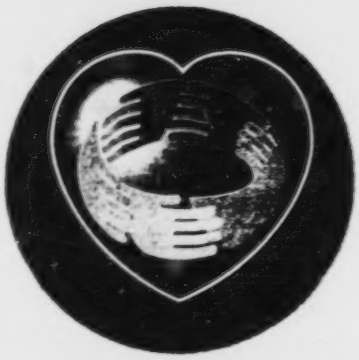

Responding to Pacific Islanders: Culturally Competent Perspectives for Substance Abuse Prevention

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention

HRSA Health Resources & Services Administration
Bureau of Primary Health Care

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Special Collaborative Edition

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Responding to Pacific Islanders: Culturally Competent Perspectives for Substance Abuse Prevention

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Foreword

The eighth installment of this special collaborative Cultural Competence Series, *Responding to Pacific Islanders: Culturally Competent Perspectives for Substance Abuse Prevention*, offers a fresh opportunity to learn about the health care needs of Pacific Islanders. This particular volume strengthens the intent of the Center for Substance Abuse Prevention, the Bureau of Primary Health Care, and the Office of Minority Health to include specific health-related issues of all the diverse cultures that make up the Nation. This monograph investigates cultural-specific factors that influence the performance of substance abuse prevention program and primary health care practices with Pacific Islander communities. It also describes cultural issues that affect Pacific Islander communities and the relationship of specific cultural factors to the design and evaluation of substance abuse prevention programs. It focuses on the distinctions and commonalties among diverse Pacific Islander communities and considers how culture can serve as a catalyst for healing through the design, implementation, and evaluation of prevention approaches. The authors describe their various perspectives on community cultural characteristics in the context of sound health care practice. These perspectives offer a framework for developing a deeper understanding of the role of culture in the prevention of substance abuse problems in Pacific Islander communities.

The authors challenge program planners and evaluators to continue to explore the potent role that culture plays in the promotion and maintenance of sound health among these diverse Pacific Islander populations and present guiding principles for the design, implementation, and evaluation of culturally responsive substance abuse prevention programs. The primary goal of this series is to advance evaluation and practice methodologies for health services and substance abuse prevention approaches within the multicultural context of community settings. The various multicultural communities in the United States represent a rich and diverse ethnic heritage. The *Cultural Competence Series* is dedicated to exploring and understanding this heritage and its critically important role in the development of culturally and linguistically accessible health services and prevention programs.

The series provides the public health and substance abuse prevention fields with a unique opportunity to formulate effective strategies for use by professionals working in widely diverse settings. This unprecedented series has established a framework for the transfer of innovative, cutting-edge technology in the health services and prevention arenas and a forum for the exchange of knowledge among program developers, implementers, and evaluators. It is the sincere hope of those who have contributed to this series that it will stimulate new ideas and further prevention efforts among all Americans.

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Preface

The publication of a volume devoted exclusively to health issues affecting Pacific Islanders comes at a most opportune time. Just months before the release of this volume two major events occurred that offer hope for the improvement of the health status of Pacific Islanders. First, the Federal Office of Management and Budget (OMB) has created a special category—"Native Hawaiian and Other Pacific Islanders"—for use in federally supported data collection efforts. Second, the United States Department of Health and Human Services (DHHS) has renewed its commitment to reduce the disparities in health care services for Asian Americans and Pacific Islanders. Clearly, the lack of language-appropriate and culturally sensitive services is a significant issue for the diversity of Pacific Islander groups in the continental United States and U.S.-associated jurisdictions. All persons, regardless of their heritage, have a language (to understand others and to be understood) and a culture (shared beliefs and attitudes about health and illness that are shaped by their history, folklore, customs, traditions, and institutions). Many persons receive language-appropriate and culturally sensitive health services as a matter of course, but a sizable proportion do not. Those persons whose language and culture are not within the dominant European-American mainstream experience severe disparities in health services. Pacific Islanders are a case in point.

The Disadvantaged Minority Health Care Act of 1990 and title VI of the Civil Rights Act of 1994 mandate that DHHS provide equal access to its programs and services to all ethnic and racial populations as well as to people with limited English skills.

Despite a multitude of health problems, many Pacific Islanders lack access to comprehensive health care because of financial, language, and cultural barriers. Financial barriers affect a significant portion of the population, who as a result have minimal or no health coverage.

Pacific Islanders have traditionally been inadequately served by DHHS programs. One reason for this inattention is the dearth of national data regarding health and gender issues that affect Pacific Islander groups and the consequent belief that these groups

have few health problems. This lack of data is a direct result of the data collection practice of lumping demographic and epidemiological statistics regarding this highly diverse population into the single category of "Asian," "Asian Pacific Islander American," or "other." Thus, these populations have great difficulty accessing Federal dollars to support culture-specific health research and to develop culturally appropriate health interventions, services, and training programs at regional, State, and community levels.

This lack of data has other effects. It severely hampers efforts to determine the impact of welfare reform and managed care on Pacific Islanders. It compromises efforts to put the health status of Pacific Islanders on the national agenda. Of the hundreds of *Healthy People 2000* objectives, only eight address Asian Americans and none address Pacific Island jurisdictions either in the continental United States or in the jurisdictions. There is much clinical observation to support the fact that Pacific Islander populations are at increased risk for substance abuse problems as well as for numerous other physical and mental health conditions. Our Federal decisionmaking system has virtually disenfranchised these populations because we lack the health-related data to substantiate their needs.

The recent OMB and DHHS initiatives indicate the need to collect and disseminate data in a disaggregated and, where appropriate, aggregated manner. Availability of such data will help health planners make informed decisions regarding research and programming aimed at these populations.

This groundbreaking volume focuses on the concept of cultural accessibility[1] as a tool to evaluate how well health services respond to the unique needs of Pacific Islander populations. It opens the possibility for health services planners, administrators, educators, practitioners, evaluators, and researchers to conduct culturally competent training and professional development that will make clinicians and providers sensitive to the unique needs of Pacific Islanders. It suggests research for testing health promotion strategies that are culturally competent and community focused, and that increase access to and utilization of services. The volume also addresses programs that link culturally appropriate

healing strategies with complementary and alternative health practices. Such programs rely on natural support systems (extended families, elders, tribal leaders, and indigenous healers) as a complement to Western healing approaches.

The authors of this volume share the hope that the material contained in these pages will stimulate further thought and action to reduce the severe disparities in health care that affect the diverse cultural groups that comprise Pacific Islanders.

Endnote

1. According to Mokuau, impediments to improved health care might be identified and assessed according to three common criteria: availability, accessibility, and acceptability. Availability refers to the existence of information and services: Are there adequate facilities, enough trained personnel, and the resource capacity to handle those in need? Accessibility refers to clients' ability to access services and is measured primarily as a function of the cost of services. Acceptability addresses the degree to which services are compatible with the worldview and cultural values of the target population.

Reference

Mokuau, N. (1996). Health and well-being for Pacific Islanders: Status, barriers and resolutions. *Asian American and Pacific Islander Journal of Health, 4*(1–3).

1

Health and Well-Being for Pacific Islanders: Status, Barriers, and Resolutions*

Noreen Mokuau, D.S.W.

Introduction

The health and well-being of all persons in the United States are central to a national agenda. In the 1980s, there were overall health improvements for the total population evidenced in specific ways: decreases in mortality rates for the leading causes of death among adults, such as heart disease and stroke; reductions in infant mortality; and declines in childhood infectious diseases such as mumps, measles, and rubella (U.S. Department of Health and Human Services [DHHS], 1990). The progress in health status for Americans, however, is diminished as Americans continue in the 1990s to be afflicted by premature death, disease, and disability. For example, cancer deaths have increased, particularly lung and breast cancer; there is the epidemic emergence of the human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS); and mental health concerns, domestic violence, and substance abuse continue to rise (DHHS, 1990). The inability of the United States to fully achieve health and well-being for its people can, in part, be traced to the severe health status of specific groups. These groups are typically defined by racial/ethnic

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status, poverty, and disability. The large disparities in health between the total population and these specific groups diminish the overall gains in health outcomes for the United States.

The promise of a healthier United States in the year 2000 is predicated on an agenda that includes within its assessment of the health of the total population an examination of the specific groups at the greatest risk for poor health. Emerging reports indicate a distressing health profile, with an above-average incidence of death and disease for one such group—Pacific Islanders. Pacific Islanders are diverse peoples who are indigenous to the thousands of islands in the Pacific Ocean and who, through citizenship or national status, have become associated with the United States. Promoting health in the United States will require a reduction of health disparities between high-risk groups such as Pacific Islanders and the total population.

The purpose of this chapter is to present information that enhances an understanding of Pacific Islander health and thereby contributes to greater health equity for these people. Specifically, this information is organized around four major areas: (1) a descriptive profile of Pacific Islander peoples, (2) an overview of their health status, (3) an identification of barriers to improved health, and (4) resolutions that will lead to health equity. In the first section, the three largest Pacific Islander groups in the United States—Hawaiians,* Samoans, and Chamorros from Guam—will be described and a prototypic conceptualization of health provided. Although there is some unevenness in the literature, with more information on Hawaiians than the other two groups, the next section broadly discusses the health status of all three groups. While biological/physical health is emphasized, other dimensions of health—such as social health, mental health, and spiritual well-being—are also reviewed. Information from the first two sections provides a context for understanding the barriers to improved health for Pacific Islanders. These barriers are reflected in the availability, accessibility, and acceptability of services to Pacific Islander people. The final section of the chapter draws from

**Editor's Note:* *In this chapter, the term "Hawaiian" refers to "Native Hawaiian," the indigenous people of Hawaii.*

the previous sections to briefly discuss resolutions for health equity. Creating greater health equity for Pacific Islanders requires that public health professionals act on all health practice, policy, and research decisions in a culturally competent manner and use cultural information to guide the development of accurate assessments and responsive programs of intervention.

Descriptive Profile of Pacific Islanders

Pacific Islanders are a diverse and complex people. A descriptive profile that focuses on demographic characteristics and cultural values provides a fundamental context for understanding their health status and for planning health care resolutions.

Demographic Characteristics of Pacific Islanders in the United States

Pacific Islanders in the United States are a small population constituting approximately 0.15 percent (365,024) of the total population of 249 million (U.S. Department of Commerce, 1991). While they are a highly diverse population comprising more than 19 different groups with variations in historical backgrounds, language, and cultural traditions, the overwhelming majority (87 percent) were born in the United States. The largest Pacific Islander groups in the United States are Hawaiians (211,014),[1] Samoans (62,964), and Chamorros or Guamanians (49,345) (U.S. Department of Commerce, 1993). Chamorros are the indigenous people of the Mariana Islands, with Guam being the largest of the Marianas. Seventy-five percent of Pacific Islanders live in California and Hawai'i, with others residing in Washington, Oregon, Texas, Utah, and other states. With a median age of 25 years, Pacific Islanders are a relatively young population compared with the total United States population, which has a median age of 33 years.

There are several demographic characteristics of this population that may have implications for their health status. These characteristics include employment and income, poverty, education, and language. Low income and, more directly, poverty are risk factors that contribute to a population's health status. The rela-

tionship between poverty and health is complex; however, it is recognized that poor people have higher death rates, higher disease incidences, greater disability, and less access to health care services than those with higher incomes (DHHS, 1990). While Pacific Islander families are strongly represented in the employment market, with 20 percent of these families having three or more workers compared with 13 percent of U.S. families, many workers are in low-paying jobs (U.S. Department of Commerce, 1993). Approximately 32 percent of Pacific Islanders are employed in technical, sales, and administrative support jobs, while only 18 percent are employed in managerial or professional specialties. Their per capita income, at $10,342, is lower than the Nation's average of $14,143, and approximately 17 percent of Pacific Islanders live below the poverty level. Among Pacific Islanders, Samoans have the highest poverty rate, at 26 percent, followed by Chamorros (15 percent), and Hawaiians (14 percent).

Demographic characteristics such as income and poverty levels are typically associated with educational attainment. Higher levels of educational attainment often correspond with higher levels of income and economic fitness. High school attainment levels are comparable for Pacific Islanders (76 percent) and the total United States population (75 percent); however, college completion rates are discrepant, with Pacific Islanders having fewer graduates (11 percent) than the total population (20 percent) (U.S. Department of Commerce, 1993). Among Pacific Islanders, Hawaiians are more likely to complete college (12 percent), followed by Chamorros (10 percent) and Samoans (8 percent). In the state of Hawai'i, efforts are being expended to improve college outcomes for Hawaiians through aggressive program changes and scholarship disbursement (Kamehameha Schools Bishop Estate, 1993).

Language capability is associated with academic performance in that English literacy can facilitate educational achievement. In addition, language capability can affect access to health care services, with persons who have limited English proficiency being uninformed about available services. One-fourth of Pacific Islanders speak a language other than English at home (U.S. Department of Commerce, 1993). The 1990 census states that among these

people, 33 percent do not speak English "very well," and 11 percent are "linguistically isolated." Among Pacific Islander populations, 64 percent of Samoans, 30 percent of Chamorros, and 7 percent of Hawaiians speak a language other than English at home.

Demographic Characteristics of Pacific Islanders Living in Associated Jurisdictions

Besides living in the United States, Samoans and Chamorros also reside in the island territories associated with the United States—American Samoa and the Mariana Islands including Guam. Demographic characteristics for Pacific Islanders living in the United States differ from those of Pacific Islanders living in their homelands. Of the 46,773 persons living in the Territory of American Samoa, the majority of the population (89 percent) is of Samoan ancestry (Pacific American Foundation, 1994; U.S. Department of Commerce, 1991). Of the 133,152 persons residing in the Territory of Guam, less than 50 percent (49,935) are of Chamorro ancestry (Pacific American Foundation, 1994; U.S. Department of Commerce, 1991). American Samoa consists of several islands (Tutuila, Manu'a Islands, Swains Islands); 98 percent of the Samoan population resides on the island of Tutuila. Guam is a single island.

Low income characterizes the wage-earning capabilities for Samoans, but income capabilities among Chamorros in Guam are better. The median household income in American Samoa, $16,000, supports an average family of 7.5 individuals (Pacific American Foundation, 1994). In Guam, wages noted for private sector employees are $17,000, and wages ranging from $21,000 to $44,000 are earned by the majority of public sector employees (Pacific American Foundation, 1994).

Pacific Islander Worldview

Pacific Islander cosmography consists of a worldview that defines the essence of a culture and shapes the lifestyle practices of its people. It is a perspective that describes the way in which Pacific Islanders traditionally view the world and universe and the manner in which they define their existence. Information on a cultural world can be instructive in understanding a people's

conceptualization of health and can be useful in the development of health care resolutions. The usefulness of broad conceptualizations, however, must be tempered with the knowledge that diversity among Pacific Islanders precludes the generalizability of such conceptualizations for all people. The ability of Pacific Islander people to identify with a defined worldview will vary between groups and even within groups, and such recognition must always guide health care services.

A central element of a Pacific Islander worldview is holism. Holism is the perspective that all parts of the world are interconnected. In Hawaiian culture, "every aspect of the Hawaiian conception of the world is related by birth and, as such, all parts of the Hawaiian world are one indivisible lineage" (Kame'eleihiwa, p. 2, 1992). The emphasis on relationships is reflected in the belief that reciprocal energy binds the individual, the family, the environment, and the spiritual world. Thus, a conceptualization of health according to such a worldview would emphasize the relationship and interconnectedness of all things. It is captured in the phrase *ola pono*, in which *ola* is defined as "life" and *pono* is defined as "in perfect order, goodness, of true nature" (Pukui & Elbert, 1986, pp. 340, 493).

Similar to Hawaiian culture, a worldview in Samoan culture reflects the importance of relationships. These relationships magnify the prominence of an individual's connections with his or her family, village or community, and church (Mokuau & Chang, 1991). A popular Samoan phrase that reflects this worldview is *teu le va*, which means "take care of the relationship" (American Samoa Government, Department of Mental Health, 1991). A perspective of health that takes into account the importance of relationships would appear critical in working with Samoan peoples. It is predictable that Samoans residing in American Samoa may find greater opportunities to "live" their worldview than those residing in the United States because of high population density and cultural cohesiveness in the island community. Nevertheless, Samoans in the United States have managed to sustain a cultural perspective despite being in an environment that is very different from their indigenous homeland. They have achieved this by choosing to live in ethnic enclaves or tightly knit and regionally

defined communities, establishing close ties with the local churches and remaining economically and emotionally committed to their families in American Samoa (Pacific American Foundation, 1994).

In Chamorro culture, priority is also attached to the interdependence, *inafa'maolek*, of nature, family, community, and church. This concept of interdependence reflects the perspective that humanity and nature are partners in the process of life. "The family is the cornerstone of a Chamorro's personal life from birth to death," and identity originates around the roles and responsibilities of the family (Untalan Munoz, 1990, p. 5). Within the family system, deference is accorded to ancestors and elders (Jose et al., 1980). Familial commitments, as well as respect for the environment and social obligations to the community and the church, all define a basic worldview of Chamorro people. In extrapolating from such a worldview, a conceptualization of health and well-being must include attention to family and interdependence. As with Samoans residing in their island territory, Chamorros residing in Guam have a better opportunity to keep such a worldview intact than do Chamorros residing in the United States. However, the formation of community-based mutual assistance groups in the United States; frequent, often annual, visits to Guam; and strong family support systems are strategies that have functioned to preserve such a worldview even among Chamorros residing in various parts of the United States (Shimizu, 1982; Untalan Munoz, 1991).

Health Status of Pacific Islanders

Overall quality of life is often reflected in health status. The health status of Pacific Islanders can be examined by highlighting a few commonly accepted health indicators such as life expectancy, leading causes of death, death rates, and infant mortality. In keeping with a worldview of holistic health, various dimensions of health—physical/biological health, social health, mental health, and spiritual well-being—will be reviewed. The limited data that are available severely constrain the provision of complete information on health status of Pacific Islanders. On many occasions, information is not standardized, and therefore, statistics are pre-

sented in context of varying dates and geographical location. For example, much of the information on health status is from the state of Hawai'i, but whenever possible, information nationally and from the island territories of American Samoa and Guam are used to support the Hawai'i information. When combined with professional consensus and anecdotal reports, these preliminary data can at least provide a foundation from which more comprehensive assessments can be made.

Biological Health

A major indicator of health is life expectancy. In 1987, the overall life expectancy of people in the United States was 75 years (DHHS, 1990). In Hawai'i, Hawaiians appear to have a life expectancy approximating the national norm, but they have among the lowest life expectancy of all groups in that multicultural state. In 1980, the life expectancy at birth for Hawaiians was 74 years, 4 years less than the state average of 78 years (Blaisdell, 1993). For Samoans residing in American Samoa, the average life expectancy at birth was 72 years (Pacific American Foundation, 1994).

The leading causes of death among the total U.S. population are also the major causes of death among Hawaiians, Samoans, and Chamorros. When data are available, it is indicated that mortality rates for heart disease, cancer, and stroke among Hawaiians are higher than for the total United States population. A report on health status of Hawaiians in Hawai'i contains specific mortality statistics showing that death rates for Hawaiians are 44 percent higher for diseases of the heart, 39 percent higher for cancer, and 31 percent greater for cerebrovascular disease (stroke) than for the total U.S. population. Specifically, the age-adjusted mortality rate

- for heart disease among Hawaiians is 273 per 100,000 persons, compared with the total U.S. population at 190 per 100,000;
- for cancer among Hawaiians is 184 per 100,000 persons, compared with the total U.S. population at 133 per 100,000; and
- for stroke among Hawaiians is 46 per 100,000 persons, compared with the total U.S. population at 35 per 100,000 (U.S. Congress Office of Technology Assessment, 1987).

Risk factors commonly associated with these diseases are also noted to be high among Hawaiians. For example, obesity, tobacco smoking, high blood pressure, alcohol drinking, and diabetes are clearly evident among Hawaiians and contribute to health risk[2] (Blaisdell, 1993; Mokuau, Hughes, & Tsark, 1995).

Information on the health status of Samoans and Chamorros is minimal. The leading causes of death in American Samoa are heart disease, cancer, accidents, and cerebrovascular disease (Pacific American Foundation, 1994). Risk factors such as hypertension, smoking, and diabetes contribute to these leading causes of death. In the United States, health problems among Samoans include stress, hypertension, obesity, diabetes, and cardiovascular disease (Pacific American Foundation, 1994). Consistent with overall data on leading causes of death among people in the United States, the major reason for death among Chamorros in Guam from 1981 to 1991 are heart disease, cancer, and cerebrovascular disease (Pacific American Foundation, 1994).

A widely recognized indicator of the health status of a population is infant mortality. In the United States, the 1987 national rate was 10 per 1,000 live births (DHHS, 1990). In Hawai'i, the 1990 infant mortality rate was the third best in the Nation, with 6.5 deaths per 1,000 births (Kamehameha Schools Bishop Estate, 1993). Rates in 1990 for Hawaiians and Samoans in Hawai'i were lower than the national norm, but higher than the state norm, at 8.3 and 8.1 deaths, respectively (Kamehameha Schools Bishop Estate, 1993). In American Samoa, 1991 infant mortality rates of 11 per 1,000 are comparable with total U.S. population rates (Pacific American Foundation, 1994). Infant mortality rates in Guam reportedly increased about 8 percent during the early 1990s (Pacific American Foundation, 1994).

Social Health

Quality of life is affected by conditions of social health. One indicator of increasing significance among Pacific Islanders is substance abuse. Recent information indicates that the use of alcohol, marijuana, and tobacco is emerging as a serious problem among Pacific Islanders in the United States and in associated jurisdictions. In addition to contributing to disease and death, abuse of

substances is associated with an array of social ills such as domestic violence, low educational achievement, low income, unemployment, and crime.

Accumulated information indicates that Hawaiians in Hawai'i experience serious problems of alcohol, tobacco, and illicit drug use (Mokuau, 1995). In a statewide survey focusing on health risk factors such as alcohol use and abuse and cigarette smoking, results indicate that Hawaiians consume alcohol and smoke cigarettes at rates higher than other populations in Hawai'i (State of Hawai'i Department of Health, 1990). Populations compared include Caucasians, Filipinos, Hawaiians, Japanese, and a category for Other. Other studies have shown that Hawaiians also have higher rates of illicit drug use (barbiturates, marijuana, inhalants, LSD, PCP, amphetamines, cocaine, methadone, heroin, poly-drug use) than other ethnic groups in Hawai'i (Austin, Prendergast, & Lee, 1989; Chandler & Kassebaum, 1991; McLaughlin et al., 1987).

The extent of alcohol and drug abuse among other Pacific Islanders is less known. However, the limited data available suggest that Samoans also experience problems of substance abuse. Reports indicate that Samoans in Hawai'i and California are at risk for substance abuse (Lindo, 1989; Pleadwell, 1992). In American Samoa, alcohol, primarily beer, is consumed in large quantities and is associated with other social problems. In Guam, there is a noted increase in tobacco smoking and betel nut use. One study indicates that while females on Guam are less likely than males to drink, their use of tobacco has not declined and their use of betel nut is becoming more evident, particularly among older Chamorro women and younger Philippine women (Pinhey, Worman, & Borja, 1992).

Mental Health

Information on mental health indicators for Pacific Islander populations is sparse. Marsella, Oliveira, Plummer, and Crabbe (1995) summarize several articles from 1982 to 1993 that report on the mental health status of Hawaiians in Hawai'i. Findings indicate that

- Hawaiians have high rates of antisocial behavior and assaultive acts that lead to admissions to State mental health facilities;
- Hawaiians have the highest rates of suicide, particularly among young adult and elderly males; and
- Hawaiians experience high rates of demoralization and low self-esteem. (p. 109)

A recent survey of patients at the only public mental health hospital in the state revealed descriptive information on Hawaiian and Samoan patients (Delva, Penglong, & Mokuau, 1993). Comprising 15 percent of the hospital population, Hawaiians tended to be slightly overrepresented in comparison to their census in the state population (13 percent). Hawaiian patients are predominantly male and tend to have a diagnosis of schizophrenia (Delva, Penglong, & Mokuau, 1993). Samoans are slightly under-represented, constituting 1.4 percent of the hospital population and 1.8 percent of the state population. They tend to be male and have variable diagnoses of organic disorders, substance abuse, schizophrenia, and bipolar disorders.

In American Samoa, from 1988 to 1989, more than 336 psychiatric cases were documented in mental health records (American Samoa Government, Department of Mental Health, 1991). Of these cases, the largest category of psychiatric disorders was designated "Other" (65 percent), which included major neuroses. The next largest categories were for mood disorders (bipolar and depression, 15 percent) and schizophrenia (11 percent). There were slightly more men (53 percent) than women.

Spiritual Well-Being

Spiritual well-being is an important dimension of the overall quality of life. It emphasizes meaning, purpose, and morality in the human experience (Canda, 1989; Mokuau, 1994). It is an integral part of a holistic worldview and is, therefore, an important part of Pacific Islander cultures. Spiritual well-being can be conceptualized as "the affirmation of life in a relationship with a god, self, community, and environment that nurtures and celebrates wholeness" (Blazer, 1991, p. 62). One key aspect of spiritual well-being

is self-determined wisdom—wisdom that derives from the ability to balance all aspects of life (Blazer, 1991).

It is difficult to empirically assess the attainment of spiritual well-being for a population. Reliance on cultural phrases and anecdotal reports, however, suggests at least two themes relevant to understanding spiritual health among Pacific Islanders. One theme reflects loss and despair and the other reflects restoration and optimism. One cultural phrase characterizes a Hawaiian's sentiment over a history that depicts colonization and cultural loss—*na kanaka 'oku'u wale aku no i kau 'uhane* (the people dismissed freely their souls and died) (Young, 1980, p. 10). Feelings of sadness and depression are said to underlie negative health, social, educational, and economic experiences for Hawaiians and can lead to the loss of the will to live (Kamehameha Schools Bishop Estate, 1993). One sociologist suggests that this sadness, or malaise, is not to be confused with a clinical mental health diagnosis but interpreted more broadly as "circles of despair" that penetrate a population that has experienced historical oppression (Hershel, 1986, p. 448). Thus, spiritual despair may be reflected in feelings of sadness and loss over cultural ways and exacerbated when there is a sense of no control and a lack of self-determination.

Similar sentiments of sadness over cultural loss have been expressed by Chamorro people. One Chamorro woman says that "the incredible cultural changes that are evident just in my own lifetime astound me . . . and deeply sadden me" (Natividad, 1995, p. 12). She, like Chamorros in Guam, believe that cultural restoration and, by connection, spiritual well-being are possible with the establishment of a commonwealth status that would provide greater self-determination.

The relationship between spiritual well-being and self-determination is clear. People who are able to maintain their worldviews and values, govern their own lives, and practice their beliefs undoubtably experience greater levels of spiritual health than people who are denied opportunities for cultural freedom. Progress on this pathway is already being created by Pacific Islanders in many different ways, and there is a sense of greater appreciation of cultural strengths and increased optimism about cultural restoration. There are those Hawaiians who seek

self-determination by advocating for sovereign-nation status and Chamorros who seek greater autonomy in governance through commonwealth status. There are also Hawaiians who are learning the indigenous Hawaiian language and arts and Samoans who maintain their own style of "village" life in urban America. Whether one asserts political liberties or cultural freedoms to express religion, language, or art, all endeavors contribute to a resurgence of cultural pride and enhance spiritual well-being.

Barriers to Improved Health

Demographic and health status information provides a context from which to assess barriers to improved health for Pacific Islanders. An impoverished socioeconomic position and a poor health profile suggest that the health care system has failed to adequately respond to needs of Pacific Islanders. Efforts to enhance the health care system are contingent on an identification of the barriers that exist. Impediments to improved health might be identified and assessed according to three common criteria: availability, accessibility, and acceptability (Mokuau & Fong, 1994; Wegner, 1989). Availability refers to the existence of information and services such that there are adequate facilities, trained personnel, and the resource capacity to handle those in need. Accessibility refers to the ability of clients to acquire or receive services and is reflected in the primary indicator of cost of services. Acceptability addresses the degree to which services are compatible or congruent with the worldview and cultural values of a population.

Availability

The previous section on health status reflects the paucity of information on Pacific Islander health status. Deficiencies in public health surveillance information on Pacific Islanders obstruct the achievement of health equity for this group. Public health surveillance information is the systematic collection and dissemination of health information for the purpose of facilitating the control and prevention of adverse health events (DHHS, 1990). It is evident that with Pacific Islanders, the data on health status is severely limited. National and state health data sets, with the

exception of Hawai'i, do not classify the various Pacific Islander groups because of the relatively small population size. Rather, the tendency is to report aggregate data for Asians and Pacific Islanders, thereby giving an inaccurate portrayal of the various populations subsumed within that category. Without adequate and accurate data, an understanding of health needs is critically constrained and the development of health goals and health services compromised.

Concerns of service availability exist for Pacific Islanders in regard to health care facilities and services and the participation of trained personnel. There is a notable shortage of primary care staff, facilities, and equipment in American Samoa and Guam and in some rural areas of Hawai'i. In American Samoa, most care is provided by one hospital, and in Guam, health care is provided by one civilian hospital and one military hospital. In American Samoa, the hospital has inadequate space, is deteriorating from poor maintenance, and has equipment that is inoperable or in need of repair (Pacific American Foundation, 1994). Some diagnostic and treatment services cannot be provided in American Samoa, and thus patients are referred to Hawai'i for their health care. A similar situation exists in Guam as patients requiring specialty services for cardiovascular, neurological, and neoplasm-related problems are referred for treatment to Honolulu, Los Angeles, or Manila (Philippines) (Pacific American Foundation, 1994). In Hawai'i, Hawaiians residing on neighboring islands must commute by plane to urban Honolulu to receive care (Mokuau, Hughes, & Tsark, 1995).

The lack of adequate facilities and services is exacerbated by shortages of personnel. For example, the U.S. Department of Health and Human Services classifies some areas of Guam and Hawai'i as medically underserved because of the shortage of medical personnel in a given community (Pacific American Foundation, 1994; Na Pu'uwai, Inc., 1994). The lack of bilingual staff also hinders the provision of appropriate care to Pacific Islanders who do not speak English. Samoans in the United States are especially vulnerable, as a high percentage of this population (64 percent) use their native language at home (U.S. Department of Commerce, 1991). Lack of sufficient health personnel detrimen-

tally influences the establishment of "routine and regular" sources of care, which are essential to health promotion and disease prevention efforts.

Accessibility

Lack of access to services affects health status. A major indicator of accessibility pertains to people's financial ability to pay for services and carry adequate medical insurance coverage. Insurance coverage is determined by factors such as income, employment, age, and preexisting medical conditions. The lack of medical insurance tends to correspond largely with low socioeconomic status and its attendant risks. Poor health as well as major risk factors for poor health are associated with persons with low income and low educational levels. For example, high blood pressure, which is a risk factor for heart disease and stroke, and tobacco use, which is linked to cancer, are higher among persons with low income status and lower educational attainment (DHHS, 1990).

Insurance coverage appears to be a greater concern for Samoans and Chamorros residing in the United States than for those in their island homelands. The current system of health care financing policies in American Samoa and Guam provides reasonable access to the facilities and services that are available (Pacific American Foundation, 1994). For example, in American Samoa, the barrier to health care is more commonly a lack of services rather than a lack of coverage (Pacific American Foundation, 1994). However, in the United States, low socioeconomic status impedes the securing of health insurance for many Pacific Islanders, especially Samoans, who have high poverty rates. Even for those who have insurance coverage, high deductibles and copayments may limit their access to health care. Furthermore, the actual cost of health care is only part of the problem—costs related to transportation expenses, loss of income for hourly wage workers, and baby-sitter fees may contribute to the overall financial burden (Pacific American Foundation, 1994).

In Hawai'i, high costs and lack of insurance deter Hawaiians who are economically impoverished from using health care services. Or these factors discourage ill persons from seeking health care until diseases are at an advanced stage. At that point, emer-

gency treatment, rather than preventive services, is required. Some people who do not have insurance may be unable to purchase other services or goods such as prescription drugs. One Native Hawaiian organization noted that some rural Hawaiian residents are denied care by physicians who refuse to treat Medicaid patients (Na Pu'uwai, Inc., 1994).

Acceptability

Barriers to improved health for Pacific Islanders are not solely explained by the lack of available facilities, inadequate personnel, or socioeconomic factors that limit insurance and block access. Barriers also exist because of a lack of acceptability of services for the populations served. Pacific Islanders who have access to services may still underutilize these services if the health care system is not responsive to cultural norms. Often, health care systems neglect to incorporate cultural worldviews and values into service delivery and thus discourage use by different groups who subscribe to such values. For example, mainstream health care systems in the United States do not generally attribute importance to holistic health, nor do they typically include family members or the community in prevention and treatment efforts. For Pacific Islanders who subscribe to a concept of health that takes into account physical, social, mental, and spiritual health, and who believe in the centrality of the family, these mainstream services may be viewed as culturally incompatible and may be underutilized. A health care system that does not include the patient's family in prevention and treatment may exacerbate stress in a period of poor health.

Several reports suggest that health care providers who are medically competent but not culturally competent may treat Pacific Islander clients inappropriately and thereby discourage their return for services (Mokuau, Hughes, & Tsark, 1995; Pacific American Foundation, 1994). These providers often overlook cultural norms that encourage a "social compatibility" based on mutual respect and sharing. These providers are perceived by some Pacific Islander patients as overly clinical, noncaring, rude, and patronizing.

A recent study of Hawaiian physicians in Hawai'i highlighted several attitudes that characterize Hawaiians' perceptions toward health care services and providers. These attitudes are also useful in understanding the attitudes of other Pacific Islanders, as they depict the lack of congruence between mainstream health care services and Pacific Islanders' cultural worldview and values. The attitudes among many Hawaiian clients are

- a basic distrust of Western approaches to health care and treatment;
- a lack of response to education and treatment that are "fear-based" or that use scare tactics as motivators to promote behavior change;
- a lack of response to treatment that focuses on the individual rather than the individual in relationship to his or her family and social support system;
- a fatalistic attitude about conditions such as diabetes, cancer, heart disease, and obesity, often coupled with an expressed powerlessness to control or change the course of a disease; and
- the belief that Hawaiians will not be treated with respect in existing mainstream services (Braun, Look, & Tsark, 1995).

Thus, major barriers to improved health for Pacific Islanders are the lack of acceptable mainstream services and a distrust of professionals who provide these services.

The low number of health care professionals who are of Pacific Islander ancestry is a related area of concern. The infusion of cultural worldview and values can be influenced by providers who subscribe to a Pacific Islander cosmographic perspective. Pacific Islander professionals serve as role models and advocates and presumably contribute to the enhancement of culturally competent services.

Implications for Resolutions

Striving for health equity for Pacific Islanders requires consideration of several ideas that focus on the promotion of heath and the prevention of illness. General solutions cannot always be used

to solve problems for specific groups; therefore, the identification of resolutions must originate in the contextual information that characterizes Pacific Islander background, health status, and barriers to improved health. The following resolutions are organized around availability, accessibility, and acceptability criteria, and serve as a foundation for more critical and expanded analyses in the future.

Availability

The dearth of information on Pacific Islanders precludes an accurate portrayal of their health status and impedes the conceptualization of comprehensive resolutions. One idea essential to improving the health of Pacific Islanders pertains to the inclusion of information on this population in public health surveillance data. Inherent in this resolution is the notion that Federal and State statistical agencies should discontinue the practice of classifying Pacific Islanders in one category and should disaggregate representative data for Hawaiians, Samoans, and Chamorros.

The lack of information is also related to the paucity of research on the health concerns of Pacific Islanders. Research on health status, lifestyle practices, and prevention and promotion activities are limited, and some of the information that is available is inconsistent and often incomplete. While more information on Hawaiians is available, increased empirical and conceptual research for all populations is needed.

The answers to improving the availability of health care services for Pacific Islanders will vary for those residing in the United States and those residing in island homelands. For Samoans and Chamorros in American Samoa and Guam, a major resolution is federal technical and financial assistance to improve the capabilities of the health care system. Improvements are needed to upgrade present facilities and equipment, and to recruit and retain health professionals. For Samoans and Chamorros residing in the United States, efforts to retain bilingual providers in health care services will enhance linguistic compatibility and, ideally, promote service utilization.

Hawaiians in rural parts of Hawai'i confront problems similar to those of their Pacific Island neighbors and require comprehensive services and competent providers in high-density Hawaiian communities. For example, recruitment of medical personnel on the island of Moloka'i, a high-density Hawaiian community, has been historically difficult because salaries are not competitive in this rural, economically depressed area. A solution would be to exercise stronger recruitment efforts in the public and private sectors by providing competitive incomes to medical personnel.

Accessibility

Resolutions to enhance the accessibility of services to Pacific Islanders must be based on a consideration of cost factors and strategies to improve health insurance coverage. These resolutions, at the broadest level, must be anchored in societal changes that reduce disparities in educational achievement, employment status, and income levels. The association of health insurance with income and employment makes it a necessity that solutions related to accessibility address such socioeconomic concerns.

On a more specific level, reexamination of third-party payment mechanisms—such as Medicaid, Medicare, prepaid health care plans, and indemnity plans—is important. For example, in Guam, Medicaid, the State-Federal program that pays for health care for the poor, places the territory in a disadvantaged economic position. Guam's Medicaid program has been statutorily established at a 50 percent Federal/local match rate with a fixed ceiling on the Federal share. The result is that Guam currently pays 70 percent of the funding for this program (Pacific American Foundation, 1994).

For Pacific Islanders in the United States who are poor and without benefit of comprehensive insurance coverage, resolutions that are anchored in national health care reform may be beneficial. Elements of heath care reform are universal coverage, portability of coverage, and standard benefits packages. In Hawai'i, there is a trend toward managed care, and the state has recently implemented a program designed to reduce economic barriers and provide greater access to health education and screening for all patients (Braun, Look, & Tsark, 1995).

Acceptability

The basis of public health services is the promotion and maintenance of the health of a society through collective or social actions (Moroney, 1995). Enhancing the acceptability of health services to Pacific Islander peoples will require a collective validation of a cultural perspective and actions to modify health services to reflect that perspective. We can begin by demonstrating respect for the Pacific Islander worldview and its attendant values and by considering ways to integrate such a perspective into service delivery.

Services that centralize the importance of holism and the family, and providers who accommodate this cultural perspective, increase opportunities for acceptability. For example, one successful health screening and education project in a small Hawaiian community in Hawai'i focused on the importance of Hawaiian women's health for their community and families (Braun, Look, & Tsark, 1995). This project encouraged women to participate in breast cancer screening by focusing on the benefit of their participation for other Hawaiian women and their families (Braun, Look, & Tsark, 1995). The result was highly favorable, with the participation of approximately 800 Hawaiian women.

Providers who are culturally competent will recognize that treating a person with dignity and respect will strengthen a relationship and increase opportunities for service utilization. These providers will be informed about cultural values and will use these values to guide their practice.

The common denominators of cultural competence include (a) self-awareness; (b) knowledge of mainstream theories and skills and the ability to modify these theories and skills to be compatible with the Pacific Islander worldview and values; and (c) knowledge of alternative or indigenous ways of healing and the ability to make appropriate referrals (Mokuau & Shimizu, 1991). Inherent in this resolution is the need to empower Pacific Islander people to assume health care positions in their own communities and the concomitant need to provide them with access to higher education. Empowering Pacific Islander people indicates support for their self-determination.

Conclusion

Health and well-being clearly interface with every aspect of living. The achievement of health equity for Pacific Islanders is related to philosophical and structural changes in the health care system. Equally important, it is related to changes in society that provide parity for Pacific Islanders in other areas, such as education, employment, and income. Resolutions for health equity, therefore, must be based on a political response to alleviating poverty and disenfranchisement for all minority populations and on a political recognition of people's inalienable rights to self-determination.

Endnotes

1. Census information on Hawaiians from the U.S. Bureau of the Census represents an undercounting of Hawaiians. In the State of Hawai'i, the Department of Health conducted an annual health surveillance in 1988 that estimated that there were 218,200 Hawaiians/part-Hawaiians in the state. In contrast, the U.S. Census counted 138,742 persons of Hawaiian ancestry (Papa Ola Lōkāhi, 1992).
2. Further research on Hawaiian health must distinguish outcomes according to blood quantum. It is generally known that pure-blood Hawaiians experience greater disparity in health outcomes than part-Hawaiians (Braun, Look, & Tsark, 1995).

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2

Reality and Vision: A Cultural Perspective in Addressing Alcohol and Drug Abuse Among Pacific Islanders

Noreen Mokuau, D.S.W.

Introduction

As we approach the year 2000, we in the United States face a chilling reality: Despite our intervention efforts, alcohol and drug abuse persists. Although drug use declined in the 1980s and early 1990s, recent national reports indicate that the magnitude of substance abuse continues to be alarming (Center for Substance Abuse Prevention [CSAP] and the National Association of Social Workers [NASW], 1995; Johnston, O'Malley, & Bachman, 1995; U.S. Department of Health and Human Services [DHHS], 1990). The U.S. Department of Health and Human Services reported that 18 million Americans aged 18 years and older experience problems related to alcohol use (DHHS, 1990), and that sizable proportions of adolescents are smoking regularly, consuming alcohol, and increasing their use of drugs such as marijuana. For example, the use of marijuana, among 12- to 17-year-olds nearly doubled from 1992 to 1994, though it remains below the peak reached in 1979 (DHHS, 1995, September 12). This increase is associated with a disturbing attitude among youth that marijuana and other drugs are not harmful.

Substance abuse costs the U.S. economy an estimated $114 billion a year, largely as a result of reduced productivity (CSAP & NASW, 1995; DHHS, 1990). The social and health costs to individuals are high as well. Among adults, alcohol and drug abuse are associated with low income, poor housing, unemployment, and violent crime. Among adolescents, substance abuse is associated with poor school performance, trouble with parents or with law enforcement, and other problems. Alcohol is implicated in nearly half of all motor vehicle fatalities, homicides, and suicides (DHHS, 1990, p. 164). DHHS (1995, November 7) found that "suicide attempt or gesture" was the most commonly reported motive for taking substances of abuse and accounted for 38 percent of all drug-related emergency hospital visits in 1994.

DHHS Secretary Donna Shalala noted that "nearly one of every four Americans is directly affected by the alcohol or drug dependency of a family member, friend, or co-worker," and that vigilance is needed to address the "constant and seductive threat of drug abuse" (DHHS, 1995, September 12, pp. 1–2). Johnston, O'Malley, and Bachman (1995) put it this way:

> *The drug problem is not an enemy which can be vanquished, as in a war. It is more a recurring and relapsing problem which must be contained to the extent possible on a long-term, ongoing basis; and, therefore, it is a problem which requires an ongoing, dynamic response from our society.* (p. 28)

This "ongoing, dynamic response" to substance abuse must take different shapes to suit the population being targeted. When dealing with ethnic/racial populations such as Pacific Islanders, all phases of the response—assessment, intervention, and evaluation—must be sensitive to cultural philosophies and values. This chapter emphasizes the importance of culturally competent programming for Pacific Islanders who experience substance abuse problems. It examines four areas that are key to the development of such programs: (1) the population, (2) the extent of substance use among this population, (3) the major etiological theories or frameworks that have relevance for this population, and (4) cultural themes that have implications for treatment and prevention.

Population: People, Place, and Time

Pacific Islanders in the United States are a small population, constituting approximately 0.15 percent (365,024) of the total U.S. population of 249 million (U.S. Department of Commerce, 1991a). They are highly heterogeneous, consisting of more than 19 different groups of various historical backgrounds, languages, and cultural traditions. The largest Pacific Islander groups residing in the United States are Hawaiians (211,014), Samoans (62,964), Chamorros or Guamanians (49,345), Tongans (17,606), and Fijians (7,036) (U.S. Department of Commerce, 1993). Seventy-five percent of these Pacific Islanders reside in California and Hawai'i (more than 100,000 in each state); other significant numbers reside in Washington, Oregon, Texas, and Utah. Pacific Islanders are a relatively young population, with a median age of 25 compared with a median age of 33 for the total U.S. population.

Researchers believe that certain demographic characteristics (e.g., lower socioeconomic status as measured by lower levels of employment, income, and education) can exacerbate an individual's risk for substance abuse, and these characteristics are evident among Pacific Islanders. In one survey, the U.S. Department of Commerce (1993) found that Pacific Islanders were solidly represented in the labor force, with 70 percent of the population being employed. Of the various groups, Chamorros had the highest labor force participation (72 percent) and Samoans had the lowest (64 percent). Despite this strong workforce participation, Pacific Islanders' per capita income ($10,342) was lower than the national average ($14,143). Hawaiians had the highest per capita income of all Pacific Islander groups ($11,446); Tongan and Samoan per capita income ($6,144 and $7,690, respectively) was half the national average. Approximately 17 percent of Pacific Islanders were living below the poverty level, compared with 14 percent nationally. Samoans had the highest poverty rate (26 percent) and Hawaiians had the lowest rate (14 percent). Educational attainment among Pacific Islanders was in line with other socioeconomic indicators: High school completion rates for Pacific Islanders were similar to the Nation's average (76 percent and 75 percent, respectively), but college completion rates were discrepant, with only 11 percent of Pacific Islanders graduating,

compared with 20 percent of the total U.S. population. Of these, Hawaiians had the highest completion rates (12 percent) and Tongans had the lowest (6 percent).

Pacific Islander peoples are indigenous to Polynesia, Micronesia, and Melanesia—geographic domains that consist of thousands of islands and many distinct cultures across 64 million square miles of the Pacific Ocean. Of the five largest Pacific Islander groups in the United States, Hawaiians, Samoans, and Tongans are from Polynesia; Chamorros are from Micronesia; and Fijians are from Melanesia.

Hawai'i is the only Pacific Island entity that has statehood; however, other Pacific Island peoples maintain formal political affiliations with the United States as territories, commonwealths, and freely associated jurisdictions. In Polynesia, there is the territory of American Samoa. In Micronesia, there is the territory of Guam, the Federated States of Micronesia (Yap, Kosrae, Pohnpei, and Chuuk), the Republic of the Marshall Islands, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau. Because of these political affiliations, island government structures, policies, and procedures are largely influenced by American protocol; and island residents hold American citizenship or national status, which allows them to travel and work in the United States with few restrictions.

Census data for these U.S.-associated jurisdictions are as follows: American Samoa—46,773, Guam—133,152, the Federated States of Micronesia—101,108, the Republic of the Marshall Islands—46,020, the Northern Mariana Islands—43,345, and the Republic of Palau—15,122 (U.S. Department of Commerce, 1991b, 1991c, 1991d, 1991e; University of Hawai'i School of Public Health, 1991). The populations of these various islands are projected to increase rapidly—in some cases doubling—in the next 15 to 40 years (Smith, 1994).

Pacific Islanders residing in the islands share the disadvantaged socioeconomic status of their counterparts in the United States:

- The median household income in American Samoa ($16,000) supports an average family of 7.5 individuals (Pacific American Foundation, 1994).

- Only 55 percent of the population in American Samoa completed high school, and 7 percent hold a bachelor's degree or higher (Pacific American Foundation, 1994).
- Guam has a per capita income of $9,928 (Pacific American Foundation, 1994).
- The Republic of the Marshall Islands has a per capita income of between $200 and $600 (Smith, 1994).
- Half of the working-age males in the Federated States of Micronesia do not participate in the cash economy, partly because of poor employment opportunities (Smith, 1994).

Despite their common status, Pacific Islanders in the United States have distinctly different life experiences from those living in their island homelands. Pacific Islanders in the United States are a minority population, are isolated from one another (except in the States of Hawai'i and, perhaps, California), and are often misidentified as belonging to ethnic/racial populations other than their own. In contrast, those living in their island homelands constitute a significant proportion of the population and their ethnic/racial affiliation is clear. For example, in the multicultural community of Guam, Chamorros (the native people) are the largest ethnic population (43 percent), followed by Filipinos (23 percent), Whites (14 percent), other Asians (7 percent), and Micronesians (5 percent) (Rodriguez, 1996).

The spatial geography of the United States as opposed to that of the islands also differentiates Pacific Islanders' life experiences and access to resources. For example, there may be resources in the United States to help Samoans deal with unemployment and health issues, but these resources may be inaccessible or culturally unacceptable. On the other hand, Samoans living in their island homelands have few resources to help them deal with their social, economic, and health needs (McCuddin, 1995; Pacific American Foundation, 1994).

Prevention professionals must acknowledge the commonalities and diversity evident among Pacific Islander peoples in order to understand the extent of substance abuse within specific groups. The poor socioeconomic indicators that Pacific Islander populations share put them at high risk for substance abuse problems. However, the diversity among these populations, evident

in their different histories, traditions, and geographic locations, has broad implications for the development of treatment and prevention programs to meet their needs. Specifically, culturally competent interventions must seek to increase the protective or resiliency factors that have cultural meaning for the target group and that help group members avoid or overcome problems of substance abuse.

Parameters of the Problem

Although substance abuse has been recognized as a major health risk for many special populations (DHHS, 1990), information regarding substance abuse among Pacific Islanders is limited. Because of Pacific Islanders' relatively small numbers, limited visibility, and lack of political power, there is no systematic collection of data on substance use and abuse among them. Large-scale surveys of drug use and trends at the national level exclude Pacific Islanders because data sets do not allow finer subgroup breakdowns (Johnston, O'Malley, & Bachman, 1995). However, an intriguing but sketchy picture of substance abuse among this population is emerging from community and regional data collection efforts.

The State of Hawai'i—home to 44 percent (162,269) of all Pacific Islanders in the United States—has generated much of the information on substance abuse among this population. Hawaiians constitute approximately 13 percent (138,742) of the State's total population of 1,108,229 (U.S. Department of Commerce, 1991a, 1993). Samoans constitute 1.4 percent (15,034); Tongans, 0.3 percent (3,088); Chamorros, 0.2 percent (2,120); and other Micronesians, 0.2 percent (1,848). A statewide study of tobacco, alcohol, and drug use among public school students in 1993 revealed the following (State of Hawai'i Office of Children and Youth, 1994):

- While alcohol is still the drug of choice among students in grades 6, 8, 10, and 12, the number of these students who use alcohol has decreased since 1989.
- The use of drugs has increased for all grades surveyed.

- By the time students are seniors in high school, 79 percent have used alcohol; 51 percent have smoked tobacco; 37 percent have used marijuana; 12 percent have used inhalants; 9 percent have used cocaine; and 8 percent have used methamphetamine ("ice").
- A strong relationship exists between alcohol and tobacco use and use of drugs.

The study indicated that Hawaiian students continue to report the highest rate of heavy alcohol use among all ethnic groups in Hawai'i (Whites, Filipinos, Japanese, Other Asians, All Others). This finding is heavily supported by earlier literature that consistently identified Hawaiians as having the highest levels of alcohol and drug use (see a review of studies in Ahern, 1989, and Austin, Prendergast, & Lee, 1989; Chung, 1986; McLaughlin, Raymond, Murakami, & Goebert, 1987). More recent data confirm such trends in Hawai'i and hint at the severity of the problem for all groups in the States. For example, David Mactas, director of the Center for Substance Abuse Prevention in Hawai'i, reported that 34 percent of persons seeking treatment for substance abuse in the State cited alcohol (and a drug) as their problem substance, compared with 23 percent nationally; and that 16 percent cited marijuana as their problem substance, compared with 7 percent nationally (Mactas, cited in Altonn, 1996).

California also has a large representation of Hawaiians (34,447), Samoans (31,917), Chamorros (25,059), Tongans (7,919), and Fijians (5,744) (Harrison, 1991), but information on substance use and trends by Pacific Islanders in the State is minimal. Hatanaka, Morales, and Kaseyama (1991, cited in Kuramoto, 1995) assessed self-perceptions of drinking behavior among 204 Asian Americans and Pacific Islanders in California and found that among the 28 Pacific Islander participants, the majority (61 percent) reported being "nondrinkers now who drank in the past" or "light drinkers." When asked the question, "Do you think you have a drinking problem?" 54 percent replied "no"; no one answered "yes"; and 46 percent were "not sure" if they had a drinking problem. The authors found that denial was one barrier to alcohol recovery among Pacific Islanders. The self-reports from the Hatanaka et al. study contrasted with an earlier report, for at

least one Pacific Islander group (Lindo, 1989). Lindo (1989) described Samoans in California as having substance abuse problems, especially marijuana and crack cocaine.

For Pacific Islanders residing in Pacific Basin jurisdictions, accounts of substance abuse are on the increase.

- In American Samoa, tobacco use is a serious problem. A World Health Organization report in 1992 estimated that smoking may have contributed to 55 percent of the total deaths in the territory that year (McCuddin, 1995). Alcohol use and abuse are also prevalent.
- In a behavioral risk factor survey in Guam in 1991, Chamorros reported the highest percentage of chronic drinking (10 percent) of beer, wine, and other liquor compared with other groups in the territory (Rodriguez, 1996).
- There are multiple reports of substance abuse among inhabitants of the Federated States of Micronesia (Hezel, 1992; Oneisom, 1991). Marshall (1979) reported that 50 of 57 males aged 18 to 25 in one village consumed alcoholic beverages.
- Communities in the Marshall Islands, the Mariana Islands, and the Republic of Palau have substance abuse problems (de la Torre, 1994; Kijiner, 1996; Sadao, 1996). For example, de la Torre (1994) reported that in the Northern Mariana Islands, alcoholism remains the number-one addiction, but problems related to ice, marijuana, nicotine, and inhalants are on the rise.

Substance Abuse and Other Problems

Substance abuse is both a precursor to and a result of an array of other human problems. Child neglect, domestic violence, homelessness, gang activity, crime, mental illness, and poor health all have been linked with substance abuse. Although a full discussion of the relationship between substance abuse and other problems is beyond the scope of this chapter, two problems—suicide and AIDS/HIV—and their connection to substance abuse appear to have special ramifications for select Pacific Islander populations.

Suicide and alcohol are inextricably linked in Micronesian society. Hezel (1985) studied suicide trends among Trukese from 1971 through 1983. He found that most suicides occurred among young males and that the suicide rate of 30 per 100,000 was three times the international rate established by the World Health Organization.

> *Suicide is frequently accompanied by heavy consumption of alcohol: About half of the victims were drinking just before their death. Yet, it can be argued that the victim drinks in order to die at least as often as he dies because he drinks.* (Hezel, 1985, p. 120)

During the 1980s, the suicide rate on Guam increased significantly—from 8.5 per 100,000 in the early part of the decade to 14 per 100,000 by the decade's end (Rubinstein, cited in Santos, 1992). Chamorros had the highest rates of suicide, and alcohol and drug abuse were factors.

Substance abuse and HIV and AIDS represent separate public health problems for Pacific Islanders, but they are related in ways that are critical to understand (Mokuau, 1995b). For example, using substances can impair a person's judgment, lead to unsafe sexual activity, and thus increase susceptibility to HIV and AIDS. Sharing needles for injecting drugs can increase a person's risk for HIV and AIDS. At present, the rate of AIDS among Hawaiians in Hawai'i is low (10 percent; State of Hawai'i Department of Health, 1994). However, because rates are high for unprotected sex, sexual activity among youth, and substance abuse, the potential for the spread of AIDS is great.

The islands in the Pacific Basin appear to be less affected by HIV and AIDS than other parts of the world (Sarda & Harrison, 1995). In 1995, 234 cases of AIDS and 645 cases of HIV were reported—a very small proportion of the global total of 1,169,811 AIDS cases reported as of June 1995 (Sarda & Harrison, 1995). Among the U.S.-associated jurisdictions, Guam reported the most cases of HIV or AIDS (100), followed by the Northern Mariana Islands (16), the Marshall Islands (10), the Federated States of Micronesia (4), the Republic of Palau (2), and American Samoa (0). These numbers seem small, but so are the total populations of these islands. Without efforts to reduce the number of infections, the spread of AIDS has the potential to decimate entire populations.

Theories and Models of Etiology

There are several theories and conceptual models that attempt to explain substance abuse among Pacific Islanders. We will consider three of these—the ecological systems theory, the public health model, and the risk and protective factors model. Common to all three is the recognition that substance abuse is the result of multiple influences from various system levels and that appropriate interventions need to address these systems. The applicability of these approaches is enhanced when they are viewed in conjunction with the culture content model and the culture conflict model, both of which take into account the unique dimensions of culture.

Ecological Systems Theory

The ecological systems theory examines substance abuse as a function of an individual's interactions with the environment. This theory views the world as a series of interacting systems, the individual as a subsystem within the family unit, and the family unit as a subsystem within the broader ecological system. An individual's behavior, including substance abuse, must be viewed as part of the person's relationship with family and with various levels of the broader system in which the individual operates (Robertson, 1995). Substance abuse disorders are seen as familial in nature. Thus, interventions must include those systems that influence the individual. Interventions tend to focus on family treatment and peer support (Robertson, 1995), with an implied emphasis on community advocacy and societal change. Amodeo (1995) identified several factors that contribute to substance abuse: (1) individual factors such as genetics, attitudes and beliefs about substance abuse, personality traits, and interpersonal skills; (2) interpersonal and societal influences such as parents, peers, school, and community; and (3) environmental influences such as Federal laws related to substance abuse, cost of substances, and the marketing of substances in the media.

Public Health Model

According to Robertson (1995), the public health model views the presence or absence of disease or illness as the result of interactions among three causal factors: agent, host, and environment. With problems of substance abuse, the host is the individual, the agent is the substance, and the environment is everything outside of the individual and the agent that influences vulnerability to the substance. Amodeo (1995) and Robertson (1995) described the following aspects of these causal factors: (1) The host may include users and nonusers (e.g., personal risk factors such as family history of substance abuse). (2) The agent is any legal or illegal drug as well as the sources, supplies, and availability of that drug. (3) The environment includes sites in the community where use and abuse take place as well as conditions that promote substance use (e.g., liquor advertising, law enforcement activities that regulate distribution). Interventions based on the public health model are multifaceted and target all three casual factors. This model is ideal for prevention programs that require strategies that (1) reduce risk factors and increase resiliency among individuals, (2) facilitate community involvement and ownership, and (3) integrate substance abuse prevention with an array of other health and social services.

Risk and Protective Factors Model

The risk and protective factors model attributes substance abuse to individual, family, and environmental influences. According to this model, the factors that put people at risk for substance abuse and the factors that protect them from abuse must be identified. Interventions are then developed that reduce the risk factors and increase the protective factors. According to Amodeo (1995), individual risk factors include delayed emotional development, inability to cope with stress, and school failure; family risk factors include parents' dependency on substances and parental abuse or neglect; environmental risk factors include poverty, unemployment, and minority status. Individual protective factors include problem-solving skills, self-esteem, and absence of emotional impairments; family protective factors include struc-

tured and nurturing family and little marital conflict; environmental protective factors include middle or upper socioeconomic status, low unemployment, and adequate housing. Implicit in the risk and protective factors approach are interventions that are directed toward the individual and his or her family as well as toward broader societal change.

Applicability of Approaches to Pacific Islanders

Because of the diversity among Pacific Islander peoples, etiological approaches—and, ultimately, interventions—must be multifaceted and comprehensive. The ecological theory, the public health model, and the risk and protective factors model all aim to address the multiple aspects of substance abuse. It is useful to blend these approaches to develop an extended framework from which to view substance abuse among Pacific Islanders.

The multisystems approach of the ecological theory emphasizes the family unit. The risk and protective factors model further defines and clarifies aspects within the family that may prevent or promote substance abuse. These approaches are highly relevant to Pacific Islander cultures, which place great emphasis and value on the nuclear and extended family. It is critical to understand those risk factors that may impinge upon the family and thereby influence substance abuse. Parental abuse or neglect is one example of a risk factor that impairs the family unit and predisposes individuals to substance abuse. Studies show that child abuse and neglect are increasing in various communities of Micronesia. Marcus (1991) suggested that rapid social development and the consequent breakdown of the family unit have precipitated child abuse and neglect. He provides an illustration:

> *A form of neglect often reported in Pohnpei [Federated States of Micronesia] is cutting off all communication ties and parental control over children due to the "busy parent" syndrome. In what has become a common family pattern throughout Micronesia, the son of one working family has been involved in drinking with other kids in town. The parents are too busy with*

their new jobs to give proper guidance to the boy . . . [and so, the drinking problems escalate]. (Marcus, 1991, p. 3).

Parental dependency on substances is another risk factor for substance abuse. In some Hawaiian families with substance abuse problems, drinking alcohol may be linked to social activities that are related to cultural norms. Whitney (1986) suggested that drinking behaviors at family festivities such as a *lu'au* fulfill Hawaiian cultural norms of affiliation and bonding. It is possible that children inherit a physical vulnerability to drinking or they learn to follow their parents' example of drinking at social functions and at home.

The multisystems approach of the public health model emphasizes the community as an important factor in substance abuse problems and their intervention. The risk and protective factors model further discusses various aspects of community. These two approaches are consistent with the importance of the collective unit and affiliations in Pacific Islander culture and are thus useful in helping us understand substance abuse among these peoples. One example of a community risk factor is the ceremonial use of certain substances, which may lead to abuse. Tongans use the psychoactive substance called kava at many important social events. Kava helps solidify social relationships, hierarchy, and community; and many Tongans, Samoans, and Hawaiians view the use of kava as an important cultural tradition. This community support is critical to the perpetuation of kava use. However, many Tongan males in Hawai'i use kava every day. One Tongan woman who has lived in Hawai'i for 14 years reported that every weekend, as many as 30 men gather at someone's house to drink kava, and that custom regarding how the drink is prepared and served still exists (MacDiarmid, 1995).

A Cultural Perspective

While the ecological theory, the public health model, and the risk and protective factors model have applicability for Pacific Islanders, approaches that address cultural elements specifically are also important. Drawing from the work of Kim, McLeod, and Shantzis (1992), Mokuau (in press) describes two conceptual models—the

cultural content model and the cultural conflict model—that are relevant for Pacific Islanders because they utilize culture as the focus for analysis. These models emphasize the sociocultural factors that affect minority populations and the importance of understanding the relationship between oppression or racism and substance abuse. They assess historical, cultural, and societal dynamics and support social changes that target entire populations.

The cultural content model stipulates that variations in substance-abusing behaviors might be explained by the different values and norms that govern various cultural groups. For example, historical evidence that Hawaiian and Samoan males consumed kava as part of religious ceremonies provides a context for understanding contemporary patterns of alcohol consumption. Although the historical purposes of consumption may differ from contemporary purposes, the behavior itself may be culturally sanctioned.

The cultural conflict model suggests that alcohol- and other drug-abusing behaviors among Pacific Islanders may be influenced by problems related to oppression or racism, alienation from the mainstream culture, identity conflict, generational conflicts, and a sense of powerlessness. For example, the model postulates that substance abuse and other problems experienced by Hawaiians have origins in historical oppression, colonization, and cultural despair. The historical loss of language, land, religion, education, and economic and government systems, and the decline in the number of full-blood Hawaiians have contributed to the disenfranchisement of Hawaiians in their own homelands and to their increased vulnerability to substance abuse.

Implications for Prevention Programs: Themes in Pacific Island Cultures

Blending the various etiological approaches to substance abuse among Pacific Islanders has important implications for prevention programs. Collectively, these approaches emphasize several areas of relevance for program development and implementation: involvement of family, participation of the community, and identification of risk and protective factors.

Involvement of Family

The family unit is the major structure and transmitter of life in Pacific Islander cultures. Within Pacific Islander families, emphasis is placed on the needs of the family unit rather than on the needs of any individual family member. The well-being of the collective unit is valued more than that of the individual.

"Family" in Pacific Islander cultures includes relatives by blood, marriage, and adoption who are living and deceased. Many Pacific Islander families recognize the spirit of a deceased person as a still-active member of the family. The family is stratified by generation, and relationships are often determined by genealogical seniority. The following story illustrates the importance of genealogical connections in a Hawaiian family:

> *K. is a Hawaiian woman who periodically converses with a family elder—great, great grandmother (Tutu) N. They talk about many topics, but especially those topics that K. finds extra troublesome. K. was born 20 years after the death of Tutu N., so while they have never met in the physical world, their communion in the spiritual world is culturally acceptable, expected, and normal.*

Spirituality, as it pertains to ancestral communication, is still an intrinsic part of many Pacific Islander cultures. For example, in Hawaiian culture, family immortals are called the *'aumākua* (ancestor gods), and they can take different earthly forms such as that of a lizard, owl, shark, or even rocks and pebbles in a stream (Pukui, Haertig, & Lee, 1973). Many Chamorros continue to show respect to ancestral spirits associated with the land and will seek permission for land-use privileges from their *taotaomo'na* (people of before—grandmother, grandfather) (Cunningham, 1992). Spirituality also remains a strong force in the lives of certain Pacific Islanders, such as Samoans, for whom the church is a highly valued institution with direct influence on the family (Mokuau & Tauiliili, 1998).

Substance abuse prevention professionals can use Pacific Islanders' regard for family to their advantage by including family participation in intervention efforts. For example, alcohol abuse interventions for Micronesian families could educate family members about the symptoms, behavioral patterns, and consequences

of substance abuse and solicit their help in prevention and treatment (Jacobs, 1992). In some Pacific Islander cultures (Samoan, for example) the extended family unit may be very large, and so it is critical that interventions include senior members—at the very least—such as the *matai* (chief).

Prevention and treatment programs must also recognize the importance of spirituality in the lives of Pacific Islanders. According to Mokuau (1995b), "It is believed that 'alcohol and drugs block the path to spirituality'" (T. Reinhardt, cited in Mokuau, 1995b). Thus, "helping people abstain from using alcohol and other drugs means helping people reconnect with their spirituality" (Mokuau, 1995b, p. 176).

Participation of the Community

Kinship for many Pacific Islanders is viewed in the context of the entire community. "Community" in Pacific Islander cultures represents the unified interests and values of a people. Self-determination is one such interest and is a driving imperative for many Pacific Islanders. However, this shared commitment is sometimes splintered by different interpretations and philosophies. For example, in 1996, the Native Hawaiian Vote—a combined effort of the Hawaiian government and designated Hawaiian leaders to implement a vote regarding Hawaiian self-determination and sovereignty (Johnston, 1996) was boycotted by many Hawaiian groups and individuals. The vote was in regard to this question: Shall the Hawaiian people elect delegates to propose a native Hawaiian government? (Hawaiian Sovereignty Elections Council, 1996). Hawaiians boycotted for several reasons, among them that the Hawaiian community had not been fully informed about how the process of self-determination would work. Despite the importance of self-determination to Hawaiians, the vote could not be supported because the community had not been properly considered.

Another group of Pacific Islanders for whom self-determination is a strong initiative are the people of Guam, particularly the Chamorros. Currently an unincorporated territory of the United States, Guam's government operates in subordina-

tion to the United States Congress. Three major implications of this political status are as follows (Natividad, 1995):

- Voting rights on the national level are denied.
- No special privileges are rendered to the Chamorros (indigenous people of Guam).
- Chamorros are denied the opportunity for self-government and, consequently, the right for self-determination.

For Chamorros, one step toward self-determination would be to gain commonwealth status. Ada (1991) stated that Guam wants a relationship with the United States based on partnership, not possession, and that commonwealth status would support such a relationship. This initiative to move toward self-determination through commonwealth status has been supported by four plebiscite votes among the people of Guam (Ada, 1991). Like Hawaiians and other Pacific Islander groups intent on autonomy and self-determination, Chamorros and other people of Guam unequivocally expect to be involved in any matters that affect their community.

The boldest implication from contemporary initiatives for self-determination is the need for community involvement in substance abuse prevention and treatment programs. Input from Pacific Islander communities regarding the design, implementation, and delivery of programs addressing substance abuse is a prerequisite for their success and credibility. Community-based participation enhances the accessibility and acceptability of services, ensuring the following (Mokuau, 1995a):

- That services are accessible and located in high-density Pacific Islander communities.
- That services are developed with the participation of Pacific Islanders and contain materials that are sensitive to their cultures.
- That services are delivered by Pacific Islanders and by others who have a commitment to this population.

Identification of Risk and Protective Factors

Knowing the risk and protective factors for a target population is important in all settings. But when dealing with minority populations such as Pacific Islanders, professionals must pay attention to such risk factors as racial discrimination, cultural devaluation, level of acculturation, and cultural and language barriers (Amodeo, 1995). Colonization of the Pacific Islands brought discrimination to the islands' indigenous peoples. Their histories have been shaped by the interests of world powers that have occupied the islands for military and commercial purposes (Mokuau & Tsark, 1992). The traumatic results of occupation include the exploitation of natural resources, the loss of native cultures (Trask, 1989), and the proliferation of health and social problems resulting from rapid social change.

For example, the Spanish conquest of Guam in the mid-1600s nearly decimated the Chamorro people as a result of war, deprivation, epidemics, and societal demoralization (Rogers, 1995). Pacific Islanders suffered greatly again during World War II as Japan and the United States conducted some of the war's bloodiest battles on the Micronesian islands (Takeuchi, 1989).

Understanding the link among history, minority status, and substance abuse can inform prevention and treatment efforts at the macrolevel. Substance abuse, like other health and social problems, is influenced by social conditions brought about by negative factors such as discrimination and oppression. Disenfranchisement in one's own homeland can lead to social demoralization (Rogers, 1995) or loss of the will to live (Kamehameha Schools Bishop Estate, 1983). Resolutions to social problems, including substance abuse, should address societal changes that eliminate inequities in education, employment, and politics; that recognize the deleterious effects of discrimination and cultural devaluing; and that enhance cultural identity and esteem.

The sense of identity and esteem that can come from positive cultural affiliation is a potentially strong protective factor for Pacific Islanders. Positive affiliation acknowledges and supports

those values and norms that are inherent strengths of a culture. Despite their histories of discrimination and oppression, Pacific Islanders have core cultural values that have sustained them through difficult times. These values have gained increased visibility and vitality in contemporary society and can be directly incorporated into substance abuse prevention and treatment programs. Values regarding family, community, nature, and spirituality, as well as norms honoring the collective nature of people, reciprocity, and a people's capacity to determine their own future, should inform program services as appropriate. Prevention approaches that build on Pacific Islanders' strengths, rather than their weaknesses, will optimize opportunities for success.

Conclusion

With the approach of the 21st century, the time has come to recognize that although people of Pacific Islander descent represent a relatively small segment of the American population, they encounter problems of substance abuse that must be addressed. Understanding the scope, etiology, and potential resolutions of substance abuse among these peoples requires a perspective that addresses complex, multiple systems and uses cultural information and experiences to define the problems and the appropriate interventions. The recognition of culture and history is a first step to empowering Pacific Islanders to overcome or avoid substance abuse. Rappoport (1990, cited in Saleebey, 1992, p. 8) stated that "to be committed to an empowerment agenda is to be committed to identify, facilitate, or create contexts in which heretofore silent and isolated people . . . and communities gain understanding, voice, and influence over decisions that affect their lives. Dr. Kekuni Blaisdell (1993), a leader among Hawaiian people, prescribed a commitment and vision that is appropriate for all indigenous Pacific Islanders:

> *[Practice] . . . enhanced revitalization of cultural traditions. . . . This should broaden and deepen secure and confident self-identity . . . and will lead to indigenous self-empowerment. . . .* (p. 151)

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3

Psychometric Evaluation of Measures for Assessing the Effectiveness of a Family-Focused Substance Abuse Prevention Intervention Among Pacific Island Families and Children

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Introduction

In recent years, concerns about alcohol, tobacco, and drug problems among Pacific Islanders have increased (Mokuau, in press; National Asian Pacific American Families Against Substance Abuse, 1991). These concerns are validated in part by surveys that compared substance use among Pacific Islander ethnic groups in Hawai'i and found that Native Hawaiian adults had the highest prevalence of acute and chronic drinking (Hawai'i State Department of Health, 1995) and that Native Hawaiian public school students had the highest rate of heavy substance use (State of Hawai'i Department of Education, 1993). In crime-related data, Native Hawaiians and Samoans were overrepresented for drug arrests (Green, Richmond, & Taira, 1992), and more Pacific Island-

ers reported having witnessed drug dealing in their neighborhood than did other individuals surveyed (Kameoka & Watkins-Victorino, 1996).

Although researchers have emphasized the need for culturally responsive interventions to reduce the risks for substance abuse and related problems among Asian Americans and Pacific Islanders (Kim et al., 1995; Zane & Sasao, 1992), there is no published empirical study on interventions to reduce these risks specifically among Pacific Islanders. The absence of any empirically based knowledge severely limits our understanding of the problem and our ability to provide services that effectively reduce risk and promote protective factors among this population.

Studies on the effectiveness of substance abuse prevention interventions in any ethnic minority group must have outcome variables that have been assessed by measures that are psychometrically sound and culturally appropriate for the targeted population. However, there are no psychometric and culturally relevant data on assessment tools for evaluating the effectiveness of substance abuse prevention programs among Pacific Islanders. As the push for community-based research on substance abuse interventions for ethnic minority populations continues to grow (e.g., Langton, 1995; Orlandi, Weston, & Epstein, 1992), the need will increase for psychometric data to support the use of relevant measures and to generate culturally competent and methodologically sound research among these populations, including Pacific Islanders.

In this chapter, we describe a study that empirically evaluated the psychometric properties of measures for a substance abuse prevention program for Asians and Pacific Islanders in Hawai'i. Because the majority of program participants were Pacific Islanders, this study focused exclusively on data pertaining to them. We evaluated the measures that assessed substance use, as well as risk factors for families, parents, and children, as identified by the Strengthening Hawai'i's Families Program (SHFP). SHFP is a culturally sensitive, family-focused prevention program designed to reduce the risk for substance abuse and to enhance protective factors among Asian-American and Pacific Islander parents and their children aged 6 to 12. The intervention was adapted from Kumpfer and DeMarsh's (1984) Strengthening

Families Program, a parent-child skills training program to reduce parents' and children's risk for substance abuse. The 14-week SHFP program consists of skills training components for families, parents, and youth. Its goal is to prevent substance abuse and related problems by improving family relationships and functioning, parenting skills, and children's social skills and by reducing behavioral problems among children. The developers of SHFP revised Kumpfer and DeMarsh's (1984) original program to make it culturally appropriate for Asian and Pacific Islander families in Hawai'i. The revised program uses culturally meaningful training materials and incorporates a value-based orientation that encourages parents to examine their family's values and relationships in relation to the targeted skills. As a result, a significant feature of the curriculum is its emphasis on cultural concepts and values relevant to Asians and Pacific Islanders living in Hawai'i.

The risk factors for family, parents, and children that SHFP targeted have been found to be related to increased substance use among youths. Specifically, empirical studies have suggested that family conflict and disorganization (DeMarsh & Kumpfer, 1986; Kumpfer & DeMarsh, 1986; Malkus, 1994; Moos & Billings, 1982), poor family management practices and parenting skills (Baumrind, 1985; Brook et al., 1990; Kumpfer & DeMarsh, 1986; McKay et al., 1991; Peterson et al., 1994), parents' psychological maladjustment (Brook et al., 1990), and substance use among parents or family members (Brook et al., 1988; Johnson et al., 1984; Kandel & Andrews, 1987) are associated with a child's increased vulnerability to substance use. Family skills training programs that target some of these variables have demonstrated positive effects; however, only a few outcome studies have been published in the literature (e.g., Kumpfer & DeMarsh, 1986; Szapocznik et al., 1989).

We evaluated measures of family functioning, parenting skills, parents' psychological adjustment, child behavioral adjustment, and adult and child substance use. We expected that the validity of the measures would be supported by positive correlations between substance use and family dysfunction, poor parenting skills, poor psychological adjustment among parents, and behavioral problems among children.

Our preliminary findings on the effectiveness of SHFP among Asian-American and Pacific Islander families support the program's positive effects. We found reductions in family conflict and in psychological distress and substance use among parents and an increase in family cohesion (Kameoka, 1995; Kameoka et al., 1996). Whether these outcomes apply only to Pacific Islander families remains to be investigated. This study on the psychometric evaluation of outcome measures for use among Pacific Islanders is a preliminary step to such an investigation.

Method

Participants

Our participants were the 102 pairs of parents and their children who participated in the larger SHFP study described earlier (Kameoka, 1995; Kameoka et al., 1996). They were recruited by the social service agencies that implement SHFP at 10 schools located in disadvantaged neighborhoods on the Hawaiian island of O'ahu. Counselors at these schools referred potential parent and child participants to SHFP. Criteria for inclusion in the study were the age of child (6 to 12 years old) and possession of one or more characteristics that put children at high risk for substance abuse, including having a parent who abused substances, being a school dropout or at risk for dropping out, being a victim of abuse or neglect, and being homeless or a runaway.

Most of the parents in this sample were females (82 percent). The mean age of parents was 34 years (SD = 6.77) and the mean number of years resided in Hawai'i was 28.28 (SD = 12.11). The sample consisted of 77 percent Native Hawaiians, 18 percent Samoans, and 5 percent other Pacific Islanders. The majority (62 percent) graduated from high school only; 14 percent did not complete high school; and 24 percent had at least some college education. Forty-nine percent of the participants were married; 25 percent were single; 18 percent were divorced or separated; and 8 percent were living with someone. Half the participants reported yearly household incomes of less than $15,000; 25 percent between $15,000 and $29,999; 20 percent between $30,000 and $49,999; and 5 percent more

than $50,000. Of the children in the sample for whom data were available, 31 were male (53 percent) and 28 were female (47 percent). Their ages ranged from 6 to 12 years (M = 8.68, SD = 1.74).

Measures

We selected, revised, or developed measures to assess family functioning, parenting attitudes and skills, parents' psychological adjustment, substance use, and child's behavioral adjustment. Most of these measures have been used in research settings and have demonstrated strong psychometric properties. We identified and revised items that were likely to be confusing or misunderstood, based on our familiarity with Asian and Pacific Island ethnocultural groups in Hawai'i. The revised instrument was pilot tested on a group of 18 adults who participated in the pilot phase of SHFP. No problems were detected when these participants were asked to identify items and rating scales that appeared unclear or problematic.

Family functioning. Four subscales of the Family Environment Scale (FES) (Moos & Moos, 1986) were used to assess indicators of family dysfunction that are thought to be related to increased risk for substance abuse: family cohesion, conflict, organization, and expressiveness. Each subscale contained nine items rated on a dichotomous true-false response scale. We modified FES items by altering words and expressions that are not commonly used in Hawai'i. Psychometric properties of FES reported by Moos and Moos (1986) are adequate. Kuder-Richardson (KR-20) internal consistency estimates ranged from .67 to .78 and 2-month test-retest reliabilities ranged from .73 to .86 (Moos & Moos, 1986). The measure's construct validity was supported by significant correlations between FES subscales and several scales including the Procidiano-Heller indices of perceived support from families and friends and the Spanier Dyadic Adjustment Scale measuring individual adjustment (Moos & Moos, 1986). Construct validity support was also evidenced by significant differences between substance-abusing and nonabusing individuals and their families on several FES subscales (Moos & Moos, 1986).

Parenting skills and attitudes. Two subscales of the Adult-Adolescent Parenting Inventory (AAPI) (Bavolek, 1984)

were used to assess outcome variables related to parenting skills and attitudes. These subscales included "parental value of physical punishment" and "inappropriate parental expectations of the child." Again, items were modified for appropriateness and use among the targeted populations. We also developed a third subscale to assess parents' use of positive reinforcement to shape their child's behaviors, a variable targeted by the intervention. Each subscale contained four items; item responses were rated on a 3-point scale ("not true," "sometimes true," and "often true").

Bavolek (1984) reported a Cronbach's alpha of .85 for the "physical punishment" subscale, a .75 estimate for the "inappropriate expectations" subscale, and 1-week test-retest correlations of .69 and .39 for these measures. Criterion-related validity was evaluated by comparing AAPI scores of abusive and nonabusive parents (Bavolek, 1984). Child-rearing attitudes of abusive parents were significantly more abusive than those of nonabusive parents.

Parent's psychological adjustment. We used two measures to assess indicators of parents' psychological adjustment: the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977) and the Brief Symptom Inventory (BSI) (Derogatis, 1993). The CES-D is a 20-item self-report instrument designed to measure symptoms of depression in the general population. Responses were rated on a 4-point response scale: "rarely (less than 1 day)"; "little of the time (1–2 days)"; "occasionally (3–4 days)"; and "most of the time (5–7 days)." The CES-D has been used extensively in research settings. Radloff (1977) reported internal consistency estimates (Cronbach's alpha) of .85 in a general population sample and .90 in a psychiatric sample. Test-retest correlations ranged from .49 (1-year interval) to .67 (4-week interval). The CES-D has strong construct validity, correlating significantly with a number of depression and mood scales such as the Bradburn Negative Affect (.60) and Langer (.54) scales. CES-D scores also discriminated psychiatric inpatients and individuals from the general population (Radloff, 1977).

The BSI is a 53-item self-report measure that assesses psychological symptom patterns among clinical and nonclinical individuals in the general population. The measure has nine symptom subscales—somatization, obsessive-compulsive behavior, interpersonal sensitivity, depression, anxiety, hostility, phobic anxi-

ety, paranoid ideation, and psychoticism—that contain from four to seven items. Participants were asked to rate the amount of distress caused by each item on a 5-point scale ranging from "not at all" to "extremely." Because the BSI measures multiple indicators of psychological adjustment and distress, it was selected to increase the sensitivity of the assessment for this outcome domain. Internal consistency, as measured by Cronbach's alpha, ranged from .71 to .85 for the nine subscales (Derogatis, 1993). Test-retest correlations for a 2-week period ranged from .68 to .91 (Derogatis, 1993). High correlations between scores for the BSI subscales and the Minnesota Multiphasic Personality Inventory (MMPI) scale supported construct validity (Derogatis, 1993). We did not revise the BSI and the CES-D because participants in our pilot study had no difficulty understanding items in these measures. Thus, findings of studies that use these measures can be compared with those of studies that use published norms.

Substance use. We revised a questionnaire to assess substance use developed by Kumpfer (Lacar, 1989). Our version of the questionnaire contained 42 items assessing parents' perceptions of substance use by the following: self; adult family members; their child who participated in SHFP; siblings; family members in their child's presence; and their child's peers. Parents answered "yes" or "no" to whether the designated individual used each of several substances listed.

Child behavioral adjustment. We used the Teacher's Report Form (TRF) (Achenbach, 1991b) to assess behavioral problems among children in this study. The TRF is a teacher's rating version of the Child Behavior Checklist (CBCL) (Achenbach, 1991a), a widely used measure of children's behavioral problems. The TRF contains 113 items that assess the following behavioral problems: withdrawn, somatic complaints, anxious or depressed, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior. Each item is rated on a 3-point scale ranging from "not true" to "very true."

Achenbach (1991b) reported internal consistency estimates ranging from .63 to .97 and 15-day test-retest reliability estimates ranging from .82 to .96 for the behavioral problem subscales. High correlations between TRF scores and the Conners Revised Teacher Rating Scale provided support for construct validity. Evidence

for criterion-related validity indicated that TRF scores significantly identified children who were receiving mental health services from those who were not (Achenbach, 1991b).

Procedure

Participants received a written statement describing the larger SHFP study and signed an agreement before to their participation. The measures were administered to adults who participated in either the SHFP treatment group or the control group. Participants completed the measures twice, once before and once after the 14-week intervention, and received $20 for each completion.

The TRF-CBCL was rated by the child participant's teacher twice, once before and once after the child's participation in SHFP. Teachers received $5 for each TRF completed.

Results

Reliability of Outcome Measures for Parents

We evaluated the reliability of outcome measures by inspecting each measure's internal consistency and stability. Table 3.1 presents the mean, standard deviation, internal consistency, and test-retest reliability estimates for all outcome measures completed by the parents. Internal consistency estimates (i.e., Cronbach's alpha and KR-20 coefficients) were based on pretest data collected from both treatment and control group participants before the beginning of SHFP. Test-retest reliability estimates were based on pretest and posttest data obtained from participants in the control group only, with 14 weeks intervening between pretest and posttest sessions. Participants in both treatment and control groups were very similar in terms of demographic characteristics.

Table 3.1. Descriptive statistics and reliability estimates for parent outcome measures

Variable	*N*	*M*	*SD*	Internal Consistency[a]	Test-Retest Coefficient[b]
Family functioning					
Cohesion	101	6.48	2.49	.80	.54
Expressiveness	102	5.07	1.59	.27	.78
Conflict	101	4.45	2.10	.63	.52
Organization	101	5.75	2.28	.70	.53
Parenting skills and attitudes					
Physical punishment	102	2.85	1.87	.75	.68
Inappropriate expectations	102	2.07	1.52	.59	.52
Reward	102	6.84	1.46	.39	.64
Parents' psychological adjustment					
CES-D total	102	14.81	8.78	.84	.75
BSI total	102	.86	.70	.97	.94
Somatization	102	.67	.73	.85	.87
Obsessiveness	102	1.05	.85	.87	.79
Interpersonal	102	.94	.85	.74	.88
Depression	102	.78	.87	.87	.67
Anxiety	102	.79	.78	.83	.89
Hostility	102	1.00	.84	.82	.86
Phobia	102	.52	.61	.69	.75
Paranoia	102	1.14	.87	.75	.87
Psychosis	102	.84	.83	.81	.92
Substance use					
Talk to child	102	15.92	8.21	.92	.64
Self use	102	1.14	1.06	.41	.57
Adult use	102	1.64	1.16	.54	.13
Child use	102	.22	1.03	.89	−.06
Sibling use	101	.34	.95	.80	.83
Family use	102	1.20	.88	.36	.50
Peer use	102	.17	.69	.80	.35

[a]Internal consistency estimates for family cohesion, expressiveness, conflict, and organization are based on KR-20.

[b]Number of participants for test-retest was 31. With the exception of adult use, child use, and peer use, all test-retest correlations were statistically significant ($p < .01$).

Internal consistency estimates for the parent outcome measures were adequate with the exception of the following: family expressiveness, reward subscale of the parenting measure, self substance use, adult substance use, and family substance use. Since the substance use measures assessed use of a variety of substances rather than a single substance, we expected lower internal consistency coefficients. Higher internal consistencies were expected, however, for family expressiveness and reward measures.

With the exception of measures for adult use, child use, and peer use, test-retest reliability estimates for all parent outcome measures were statistically significant. In general, these reliability estimates are adequate given the relatively long interval (14 weeks) between test administrations.

Validity of Outcome Measures for Parents

Concurrent validity of the parent outcome measures was evaluated by examining correlations among the risk factors for substance use (i.e., family environment, parenting, and parents' psychological adjustment) and substance use variables (i.e., self use, child use, sibling use, and use by family members in the presence of the child) (table 3.2). With regard to family functioning, we expected that family cohesion, expressiveness, and organization would be associated with less substance use and that family conflict would be associated with greater use. Indeed, we found that greater substance use among family members was significantly associated with less family cohesion ($r = -.32$; $p<.01$), greater family conflict ($r = .23$; $p<.05$), and less organization within the family ($r = -.22$; $p<.05$). The data also showed that greater substance use among siblings was significantly related to less family cohesion ($r = -.27$; $p<.05$) and increased family conflict ($r = .24$; $p<.05$).

Table 3.2. Concurrent validity coefficients for parent outcome measures (n = 101)

Variable	Self Use	Child Use	Sibling Use	Family Use	CES-D Total
Family functioning					
Cohesion	-.10	-.06	-.27*	-.32*	-.51*
Expressiveness	-.08	.07	.07	.03	-.32*
Conflict	.19	.14	.24*	.23*	.38*
Organization	-.10	-.07	-.16	-.22*	-.36*
Parenting skills and attitudes					
Physical punishment	-.03	-.08	.07	-.10	.21*
Inappropriate exnectations	-.003	-.04	.09	-.05	.01
Reward	.12	-.02	-.004	.14	.07
Parents' psychological adjustment					
CES-D total	.12	-.01	.15	.10	1.00
BSI total	.14	-.02	.02	.15	.72*
Somatization	-.05	-.05	-.004	.12	.53*
Obsessiveness	.12	-.006	-.02	.16	.59*
Interpersonal	.15	.0006	-.008	.11	.63*
Depression	.21*	-.005	.02	.13	.65*
Anxiety	.13	-.06	-.01	.13	.66*
Hostility	.23*	.06	.07	.20*	.63*
Phobia	.15	-.01	.03	.13	.65*
Paranoia	.07	-.06	.05	.07	.61*
Psychosis	.12	.01	.02	.10	.60*
Substance use					
Talk to child	.23*	-.05	-.06	.06	.17
Self use	1.00	.17	-.03	.42*	.12
Adult use	.48*	.08	.13	.60*	.21*
Child use	.17	1.00	.64*	.14	-.01
Sibling use	-.03	.64*	1.00	.30*	.15
Family use	.42*	.14	.30*	1.00	.10
Peer use	.01	.85*	.61*	.09	-.04

*$p < .05$

*$p < .01$

To measure parenting skills, we assessed parents' use of physical punishment, inappropriate expectations of the child, and use of rewards. Measures of physical punishment and inappropriate expectations were expected to correlate with increased levels of substance use among children and siblings, while parents' use of rewards was expected to correlate with decreased use. However, no significant correlations were found.

As we expected, poor psychological adjustment among parents was associated with greater substance use. We found significant correlations between parents' substance use and their level of BSI depression ($r = .21$; $p<.05$) and hostility ($r = .23$; $p<.05$), and between substance use among family members and hostility among parents ($r = .20$; $p<.05$). We also found that parents' level of depression was positively associated with family dysfunctioning, parents' use of physical punishment, and parents' general psychological maladjustment. Specifically, higher CES-D depression scores among parents were significantly related to decreased family cohesion, organization, and expressiveness; increased family conflict; and parents' increased use of physical punishment and higher levels of psychological maladjustment.

We predicted positive associations between substance use by parents and by adult household members, children, siblings, and the family. Significant correlations were found between substance use by parent and adult household members ($r = .48$; $p<.01$), parent and the family ($r = .42$; $p<.01$), children and their siblings ($r = .64$; $p<.01$), and between siblings and the family ($r = .30$; $p<.01$). As predicted from previous research (Kandel & Andrews, 1987), child use was significantly correlated with peer use ($r = .85$; $p<.01$). In sum, the measures that received the strongest support for concurrent validity included the family functioning scales, measures of parents' psychological adjustment, and our measure of substance use.

Reliability and Validity of Outcome Measures for Children

Table 3.3 presents summary statistics, internal consistency and test-retest reliability estimates, and concurrent validity coefficients for the child behavioral adjustment measure (i.e., TRF-CBCL). Internal consistency estimates for all problem behavior scales ranged from .65 to .97; test-retest reliability estimates ranged from .64 to .94. The concurrent validity of these scales was evaluated by correlating scores for problem behavior with scores for substance use by child, peer, and family. We expected that a child's behavioral problems would be associated with increased substance use by child, peer, and family. In fact, greater child use was significantly associated with the child's being more withdrawn ($r = .43$; $p<.01$) and having more thought problems ($r = .32$; $p<.01$). Interestingly, we also found that peer use of substances was significantly associated with a child's behavioral problems, including increased attention problems ($r = .29$; $p<.05$), delinquent behavior ($r = .46$; $p<.01$), aggressive behavior ($r = .35$; $p<.05$), and overall problem behavior ($r = .32$; $p<.05$). We did not, however, find significant correlations between child behavioral problems and substance use among family members. These results partially support the concurrent validity of the TRF-CBCL because they confirm the expected relations with the substance use measures.

Table 3.3. Descriptive statistics, reliability estimates, and concurrent validity coefficients for child outcome measures ($n = 59$)

Variable	Mean	*SD*	Internal Consistency	Test-Retest Coefficient[a]	Correlation With Child Use[b]	Correlation With Peer Use[b]	Correlation With Family Use[b]
TRF-CBCL							
Withdrawn	2.22	2.97	.82	.90	.43*	.09	.10
Somatic complaints	.78	1.52	.6511	.64	.07	.18	.00
Anxious or depressed	3.97	5.16	.90	.93	.05	.23	.02
Social problems	2.63	3.74	.87	.93	.12	.24	−.07
Thought problems	.87	1.60	.66	.90	.32*	.06	.18
Attention problems	11.24	9.43	.95	.94	.07	.29**	−.12
Delinquent behavior	1.98	2.54	.78	.69	−.06	.46*	−.14
Aggressive behavior	8.21	11.05	.97	.76	.05	.35**	−.01
[illegible]nalizing	6.97	8.56	.92	.91	.19	.20	.04
[illegible]nalizing	10.19	13.28	.97	.76	.03	.38*	−.04
Total score	32.02	30.67	.97	.90	.11	.32**	−.05

[a]Number of participants for test-retest was 17.

[b]Correlations are based on $n = 48$.

*$p < .01$.

**$p < .05$.

Discussion

This study examined the psychometric characteristics of measures for evaluating the effectiveness of a family-focused substance abuse prevention program among Pacific Islanders in Hawai'i. Despite concerns about the lack of empirical knowledge regarding substance abuse intervention strategies for Pacific Islanders, there are no reports in the literature of assessment of such interventions or of measures to conduct these assessments. Our psychometric findings support the value of including in prevention programs for Pacific Islanders selected measures that assess risk factors for substance abuse.

Reliability

Overall, internal consistency estimates for parent and child outcome measures were adequate, with the exception of family expressiveness and parents' use of rewards. The very low internal consistency estimate for family expressiveness (alpha = .27) suggested that the items do not describe a common underlying construct for our sample of Pacific Islander families. Upon closer inspection of correlations between each item and the total expressiveness score, we found that certain items lacked coherence (e.g., "If we feel like doing something at the last minute, we just go and do it," "We openly talk about money and paying bills in our family," and "There are a lot of spontaneous discussions in our family"). Thus, poor internal consistency, combined with the validity problems described below, suggested that this measure was not appropriate for assessing family dysfunction among Pacific Islander families.

Because the parenting scales contained only four items, we expected these measures to have lower internal consistency estimates than the family functioning and psychological adjustment measures. However, the estimate for physical punishment was moderately high (alpha = .75), and the estimate for inappropriate expectation was fairly low (alpha = .59). The lower reliability estimate for the reward measure (alpha = .39) clearly indicated a lack of coherence among the items. When we correlated the item score with total score, we found that two of the reward items were particularly poor: one item contained a compound sentence and

the second contained a conditional statement. Thus, both items may have been easily misinterpreted and should be revised.

As mentioned earlier, we expected lower internal consistency for the substance use scales because these do not assess a homogeneous construct: Use of one substance is not necessarily related to use of another substance. We found low internal consistency estimates for the self, adult, and family use scales, but high estimates for the child, sibling, and peer use scales. These findings indicated that parents rated their children's substance use consistently across substances (e.g., child does not use any substance). Also, the lower internal consistency for the adult use measures suggested that parents use selected substances (e.g., drink alcohol but do not smoke marijuana).

Given the length of time between test administrations, test-retest reliability estimates were adequate for all but three parent and child outcome measures: the substance use measures for adult, child, and peer. The low and insignificant test-retest correlations for these measures may be due to changes in parents' perceptions of substance use over the 14-week test interval.

Finally, while most of the parent and child measures of substance use risk factors targeted by SHFP were adequately reliable in our sample of Pacific Islanders, the low internal consistency of the family expressiveness and reward measures reduces these measures' usefulness in the evaluation of SHFP.

Concurrent Validity

Family functioning. Our data provided concurrent validity support for three of the four family functioning measures—cohesion, organization, and conflict. We found that substance use among Pacific Islander family members was significantly related to lack of family cohesion, lack of family organization, and increased family conflict. This finding is consistent with previous studies that found significantly higher family conflict and lower family cohesion among substance-abusing families in comparison with non-substance-abusing families (Kumpfer & DeMarsh, 1986; Moos & Billings, 1982) and with evidence of the association between decreased family cohesion and increased substance abuse among adolescents (Malkus, 1994).

The lack of concurrent validity support for the fourth measure—family expressiveness—is not surprising because of its low reliability estimate for internal consistency. In addition to this deficiency, how one defines this measure and thus interprets the scores can be troublesome. Moos and Moos (1986) defined family expressiveness as "the extent to which family members are encouraged to act openly and to express their feelings directly" (p. 2). According to this definition, a high expressiveness score is interpreted as a person's being more adaptive and functional. This interpretation, however, is not consistent with cultural norms and behavioral expectations among Hawaiian families, who value a nonconfrontational and indirect communication style, particularly in situations where conflict is apt to occur as a result of direct expression of feelings or emotions (Howard, 1974). In Native Hawaiian families, the boundaries of verbal expressiveness are defined by the status one holds in the family's hierarchical structure and by the context in which communication occurs (Boggs, 1985). Thus, the usefulness of the family expressiveness measure for the evaluation of a family-focused intervention among Native Hawaiians is highly questionable.

Parenting skills and attitudes. Previous studies have found that family management practices—as indicated by parental monitoring, firmness, clarity of family rules, and use of positive reinforcement—are strongly associated with decreased substance use among adolescents (Baumrind, 1985; Peterson et al., 1994). Contrary to these findings, we found no significant correlations between the three parenting skills and attitudes measures (physical punishment, inappropriate expectations, and reward) and the substance use measures. This lack of association may suggest that the parenting skills and attitudes targeted by SHFP are not directly related to substance use among Pacific Islanders. For example, the effect of parenting on the child's use of substances may be moderated by peer influences (Kandel & Andrews, 1987). Also, past research suggested that substance abuse prevention efforts should target and assess parental monitoring and rule-setting (Peterson et al., 1994). These two parenting variables merit consideration in family-based prevention programs for Pacific Islanders. Nonetheless, our psychometric evaluation clearly

indicated that the parenting measures require revision and clarification for future use.

Parents' psychological adjustment and child's behavioral adjustment. Concurrent validity evidence for the two measures of parents' psychological adjustment (CES-D and BSI) were mixed. As expected, our findings showed that psychological problems (depression and hostility) were significantly related to increased substance use among parents. Parents' psychological maladjustment was not, however, related to the child's use of substances. Prior studies have shown that the effect of parents' psychological maladjustment on a child's use of substances is contingent upon the child's personality characteristics (e.g., psychological stability and conventionality) (Brook et al., 1981; Brook et al., 1986). Thus, while we failed to find a direct relationship between parents' maladjustment and child's substance use, a test of the mediating effects of the child's personality may reveal an indirect relationship between the two variables. We did not test these effects because our study was not designed to examine causal models; however, the present findings provide a basis for future efforts to test such models among Pacific Islanders.

In support of the concurrent validity of the child behavioral adjustment measure, we found various problem behaviors significantly associated with child and peer substance use. This finding is consistent with those of a number of investigations (e.g., Brook et al., 1986; Kandel, Kessler, & Margulies, 1978; Newcomb et al., 1987; Wills et al., 1996).

Substance use. Our data supported the validity of the substance use measures in terms of both the significant findings reported above as well as significant relationships observed among the various substance use measures. The high positive correlations found in use of substances among the child, peers, and siblings correspond with the common observation that peer use of substances is a strong predictor of substance use among adolescents (Kandel & Andrews, 1987; Wills et al., 1996). While the effect of peer use has been found largely among adolescents, the strong association between child and peer substance use among our 8- to 12-year-old participants suggests the influential role of peers in our sample, at least as perceived by the child's parent.

Conclusion

The results of this study must be interpreted within the limitations of the study's design. First, restricted sampling poses obvious constraints on the generalizability of our findings. The study's participants were recruited on the basis of the child's and families' risk factors for substance abuse. As volunteers, these participants were sufficiently motivated to participate in the larger intervention study. Also, our sample consisted primarily of Native Hawaiians and Samoans and does not represent the culturally heterogeneous population of Pacific Islanders. Second, our measures of substance use reflected parents' perception of use, not actual use. Similarly, measures of child behavioral adjustment reflected teachers' perceptions of the child's behaviors in the classroom. Thus, the results pertaining to these measures must be interpreted as perceptions of behaviors rather than indices of actual behaviors. Third, the variables targeted in this study were those defined by the objectives and design of SHFP. Thus, our evaluation is limited to those particular variables.

In light of these limitations, the results of this study generally supported the measures' reliability and validity for assessing substance use and risk factors for use in our sample of Pacific Islander families and children. The low internal consistency estimates and lack of significant validity coefficients for the family expressiveness and reward measures suggest that these measures, as currently designed, are not adequate for use with this population. Development of new measures is desirable to better assess the parenting variables targeted by SHFP and to target additional parenting variables that have been associated with substance use among children in previous studies. In sum, this study provided the necessary first step toward the development and use of measures appropriate for substance use research among Pacific Islanders. Our findings provide empirical data to support the use of some measures and the modification of others for assessing the effectiveness of programs to reduce the risk for substance abuse among Pacific Islanders.

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4

Ho'omau Ke Ola: 'To Perpetuate Life as It Was Meant to Be'

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Introduction

The clinical treatment of substance abuse is widely recognized as effective in reducing illicit drug use (Hubbard, Bray, Craddock, Cavanaugh, Schlenger, and Rachal, 1986; Sells, 1974), in reducing crime and improving social functioning (McLellan, Luborsky, O'Brien, Barr, and Evans, 1986), and as a strategy to prevent the spread of HIV/AIDS. However, many mainstream substance abuse treatment programs have ignored the relationship between culture, politics, and health, as well as the role of ethnicity in the abuse and treatment of illicit substances, although it is precisely in poor communities of color where drug and alcohol addiction has the most devastating impact. Mainstream treatment options in the United States often reflect the epistemologies, values, and

beliefs of a dominant, white, middle-class society. However, as some recent research has suggested (Mokuau, 1990a), these options may not be appropriate or efficacious for the treatment of people from an array of culturally diverse, non-white populations.

Ho'omau Ke Ola is one substance abuse treatment agency that has successfully incorporated non-Western methods of healing and diagnoses into its clinical program.[1] Located on the Wai'anae Coast of O'ahu, Hawai'i, Ho'omau Ke Ola serves a semi-rural, semi-suburban, self-contained geographic area with the poorest statistics of any area statewide, and the largest concentration of Native Hawaiians in the world. Nearly 60 percent of the population have incomes below the poverty level, and only 57.5 percent of adults are high school graduates. Although initially, in the agency's early years, treatment interventions were based upon prevalent mainstream models of addiction services, a program evaluation revealed that the Western model was not sufficient for the retention or treatment of the predominantly Native Hawaiian clientele, 67 percent of whom were referred by the criminal justice system. Thus, the goal of the agency is the development of a treatment program that utilizes the best of Hawaiian conceptions of health and disease along with the most appropriate of Western methodologies.

Ho'omau Ke Ola began to explore alternative venues of treatment in order to identify more effective and sustaining results for its client population. Through client, family, and staff feedback, it became increasingly apparent that interventions which reflected Hawaiian cultural values and world view were believed to have a greater efficacy on substance abuse treatment in terms of personal change and growth. Consequently, Ho'omau Ke Ola began a process of incorporating some of the Hawaiian values and viewpoints that had been historically suppressed by the hegemony of Western science and medicine.

The first section of this chapter discusses the importance of linking politics, culture, and health in the colonial and post-colonial context of Hawai'i, and explores some of the problems and issues that Native Hawaiian communities are currently confronting in relation to health and substance abuse. The second section is a review of the literature on family-centered approaches and indigenous healing

methodology in substance abuse treatment and prevention. The third section discusses the Hawaiian worldview and conceptions of health and disease. In the fourth section, four culturally based concepts (*Aloha 'Aina*, Deep Culture Therapy, Ho'oponopono, and the Wai'anae Diet) that form a significant part of Ho'omau Ke Ola's treatment program are presented.

Linking Politics, Culture, and Health

A Native Hawaiian health movement, of which Ho'omau Ke Ola is a part, has linked health and empowerment for Native Hawaiians. As is historically evident, contact with and colonization by the West was literally deadly for Hawaiian people, as diseases endemic to the West devastated the Native population. The connection between health and political empowerment, and between loss of health and loss of culture, has been explicitly drawn by many activist Native Hawaiian health professionals such as Dr. Kekuni Blaisdell, who became an advocate of Native sovereignty after working on the 1983 Federal Native Hawaiian Study Commission. The study's findings concluded that Native Hawaiians suffered poorer health than other local ethnic groups because they were "victims of depopulation" and "continuing exploitation." According to Blaisdell (1993), "cultural conflicts" between Western and traditional lifestyles force "too many [Natives] to give up" and "turn to drugs, alcohol, and other unhealthy Western practices" (p. 146). In response to these continued threats to the health and well-being of indigenous Hawaiians, the Native Hawaiian health movement makes an explicit distinction between an unhealthy, "modernized Western lifestyle" and a healthy "traditional way of life" (Shintani, 1994)—including support for Hawaiian sovereignty and independence from the United States.

Despite the current reputation of Hawaii as the "Health State," Native Hawaiians have the poorest health of all the ethnic groups in the state, including the highest rates of heart disease; highest stroke, cancer, and accident mortality; the highest rates of chronic obstructed lung disease; and the highest mortality rates. Indeed, between 1980–86, the cancer mortality rate among indigenous Hawaiians was the highest in the entire United States (Blaisdell, 1993, p. 126).

Native Hawaiian families and communities are further being devastated by an influx of drugs and the associated lifestyle of violence, crime, and intergenerational abuse. The growth of alcoholism and illicit drug addiction among Native Hawaiians can be understood as one of the latest Western scourges to afflict the Native Hawaiian community, increasing the morbidity rate, including the threat of HIV/AIDS.

According to the Native Hawaiian Study Commission, a 1983 report issued to Congress on the "culture, needs, and concerns of the Native Hawaiians," indigenous Hawaiians had rates of alcohol and drug abuse larger than their proportion of the total population. While Native Hawaiians comprised only 16 per cent of the population, they accounted for nearly 23 percent of the alcohol and drug abusing population[2] (p. 149). The commission also found that although "Caucasian" drug users were receiving adequate treatment services or were overserved, Native Hawaiians were particularly underserved by the existing system of drug abuse treatment services (p. 150).

The 1991 Hawai'i Behavioral Health Survey indicated that there were about 107,068 adults who were heavy (binge and chronic) drinkers (p. 4.4). Of these, an estimated 30,875 or 28.8 percent were Native Hawaiians. Another 65,392 adults suffered from abuse of chemical substances other than alcohol. Of these, an estimated 15,955 or 24.4 percent were Native Hawaiians (p. 4.4). Some 89,000 adults were potential alcohol and/or drug abusers, a portion of whom may experience sufficient impairment from their abuse to require residential treatment (p. 3.18). The survey also stated the rates of underreporting of behaviors were extensive, perhaps over 50 percent and that hidden populations remain an unknown group. These include the homeless, inmates, and IVDUs (intravenous drug users) (p. 17.6).

The report further found that the consumption of alcohol was problematic for a significant portion of the population on the Wai'anae Coast (p. 10.2). Thirty-nine percent of individuals older than 21 in the Wai'anae Service Area sample were drinkers. Of these drinkers, 60.3 percent were heavy drinkers (over 23 percent of the district's population). In the 18–21 age category, 75 percent of those surveyed were heavy drinkers, indicating a group at serious risk of alcohol dependency. Both males and females were

more likely to be heavy drinkers in nearly every age group category. In total, at least 18.8 percent of the drinkers in the sample reported behaviors such as "blackouts" that indicate a need for clinical alcohol assessment services (pp. 10.3–10.4). The scoring of the SMAST (Short Michigan Alcohol Screening Test) revealed that 16.3 percent of the males and 6.7 percent of the females, or 19.2 percent of the adult drinking population on the Wai'anae Coast area met the screening criteria for alcoholism. Of the respondents to this survey, 45.5 percent smoked marijuana at some time in their life and 24 percent smoke marijuana at the time the data was collected (11 percent of the population of the district) (p. 10.6). Finally, 6.5 percent reported having used drugs other than marijuana for nonmedical purposes, and 2.5 percent were currently using such substances (p. 10.7).

The growing problem of drug addiction was further documented in 1994 by a comprehensive community study of illicit drug use in Honolulu that documented both the prevalence of drug use and the transformation of consumption patterns. Asian/Pacific Islanders, including Native Hawaiians, accounted for over three-fourths of the Honolulu sample (Morgan, Beck, Joe, McDonnell, and Gutierrez, 1994) in which nearly 50 percent of the sample reported "moderate to heavy" use of crack, and 27 percent reported heroin use.

According to the Governor's Office of Children and Youth Data Book, *The Bottom Line* (1994), 24 percent of births in 1993 were to Native Hawaiian women (p. 39). These women had the highest number of children born to mothers under the age of 18, accounting for 52 percent of all births. Forty-six percent of all births to Native Hawaiian women were to Native Hawaiian women under the age of 20. Native Hawaiian women had the highest percentage of alcohol consumption during pregnancy in 1993. In addition, 11.9 percent of the cases of birth defects were associated with maternal alcohol intake; 25 percent with tobacco; and 23.8 percent with a combination of alcohol, tobacco, and drugs for the period 1980 and 1991. The use of illicit drugs during pregnancy (including marijuana, cocaine, ice, and opiates) appears to have increased significantly in Hawai'i. This report also notes in 1987 there were 17 infants identified by the Child Protective Services Medical Team as being "drug exposed," either by a positive urine

toxicology on the mother or baby, or a positive maternal history. In 1989, this number increased sharply to 108 (p. 53). To better ascertain the prevalence of drug use among women delivering in Hawai'i, studies were done at four medical facilities on three islands over varying periods between 1989–1992. Results showed that Native Hawaiians had the highest rate of positive screens at 8.8 percent. Of the substances identified in the urine screen, marijuana was the most commonly found with 71.8 percent, followed by amphetamines/methamphetamines with 24.4 percent, cocaine with 16.7 percent, and opiates with 6.4 percent (Governor's Office of Children and Youth, p. 53).

A 1995 survey conducted by the state of Hawai'i documented an alarming trend toward greater drug use. The survey showed that compared with data from 1991, the percentage of adults reporting heroin and cocaine use has tripled, while the percentage of adults reporting use of hallucinogens, amphetamines, and methamphetamines more than doubled. The study revealed that although one of every ten adults in the state abuse alcohol or drugs, less than 5 percent were receiving treatment (Wright, 1995).

Native Hawaiian communities are being actively destroyed by a predator that is creating increased paranoia; violent behavior; criminal activity; and poor physical, emotional, and spiritual health. This predator, which has lately taken the form of methamphetamines, cocaine, marijuana, and other addictive substances, is having a disastrous impact on Native Hawaiian communities, families, and children. On the Wai'anae Coast of O'ahu, an area with the largest concentration of Native Hawaiians in the world, it seems impossible to find one family who has not been touched in some way by the devastation and chaos of alcoholism and drug addiction.

Literature Review: Family-Centered Treatment and Indigenous Healing Methodology

The inclusion of Native Hawaiian values and traditions into intervention requires a focus on family and indigenous healing methods. Ho'omau Ke Ola's treatment methodology is both

'ohana, or family centered, and Hawaiian culture specific. Since island cultures are *'ohana*-based, the *'ohana* must be an integral part of the individual's treatment process. The *'ohana* is an extended system that includes multigenerational members, including *kupuna* (grandparents), *makua* (parents), and *'opio* (youth). These members may or may not be related by blood, but all play a significant role in the lives of the *'ohana* members and are therefore integral to the treatment plan.

A large body of Western research points to the efficacy of family-centered drug interventions and treatments (Klagsburn and Davis, 1977; Lewis and McAvoy, 1984; Stanton, 1980; Stanton and Todd, 1979) in terms of decreased drug dependence and lower rates of recidivism, and posits that alcoholism and drug abuse are symptoms of the broader family system (Levine, 1985; Steinglass, 1980). In a study comparing drug-using adolescents and their families with non-drug-using adolescents and their families, Rees and Wilborn (1983) found an interrelationship between adolescent self-esteem, poor family communication, and adolescent drug use. According to their findings, the parents of drug-abusing adolescents showed a lack of skill and confidence in communicating. Research conducted by Simons and Robertson (1989) similarly underscored the significance of nurturant, supportive parenting, in reducing substance abuse, and suggested that effective substance use interventions should target the family. Arguing that peer-based drug abuse prevention strategies have shown limited success, Lee and Goddard (1989) posited that the family is one of the key variables in the prediction or prevention of adolescent substance abuse (see also Jurich, Polson, Jurich, and Bates, 1985; Kumpfer and DeMarsh, 1985; McCubbin, Needle, and Wilson, 1985; Streit and Oliver, 1972), and that family life education programs can play important roles in the prevention of adolescent substance abuse. Further research has suggested that family interventions are more effective than individual interventions in preventing relapse to drug abuse (Joanning, Thomas, Quinn, and Mullen, 1992; Stanton 1980; Kaufman and Kaufman, 1979).

Along with the importance of treatment methodologies which include the family, the significance of designing culturally specific

drug and alcohol treatment and prevention interventions has been suggested by a number of studies. However, while a growing body of literature affirms the efficacy of specific cultural perspectives and practices in the design and development of drug abuse intervention strategies (DeLarosa, 1988; Maypole and Anderson, 1987; Kim-Raynor and Nakasone 1981; Aron, Alger, and Gonzales, 1974), as well as the effectiveness of such interventions (Blaisdell, 1993; Jilek, 1993; Mokuau,1990b; Laird, 1984), very little research has been conducted to support these positions (Mokuau and Fong, 1994; Takeuchi, Mokuau, and Chun, 1992). As Mokuau (1990a; see also Manicucci and Wermuth, 1989) has discussed, most of the research on the efficacy of drug treatment interventions has focused on white individuals and families and on Western treatment methodologies, which are not likely to be appropriate across ethnic/cultural groups (Wermuth and Scheidt, 1986).

Although Western drug and alcohol treatment programs often ignore the political, economic, and socio-cultural context in which substance abuse occurs, some indigenous organizations in North America, Australia, and New Zealand have begun creating innovative culture-specific interventions in the field of addictions (Brady, 1995). The theoretical orientation of these programs is based on the assumption that it is impossible to grasp the complex relationship between culture and health without understanding the history of colonial exploitation or efforts to revitalize the indigenous culture and win political power. Although there is a dearth of such material exploring Native Hawaiian treatment methodology, there is a larger literature that explores issues of Native American, Australian aboriginal, and Maori treatment methodologies and conceptions of health and disease and their relationship with Western biomedical conceptions. These are in some respects relevant to Native Hawaiians.

Several articles by Sachev (1989, 1990a, 1990b, 1990c, 1990d) discuss important Maori conceptions of mental health and disease, and demonstrate how these constructs challenge Western epistemology and raise questions about the appropriateness of Western therapeutic models for the treatment of Maori people (see also Brady, 1995). Sachev's analysis is highly relevant to Native Hawaiians because of the similarities between the two groups' experience of European

colonization. According to Sachev, the Maori experience exemplifies colonized people's struggle to "survive and thrive" in modernity. Sachev posits that the Maori attempt at cultural survival "may even provide a model" of a viable nonindustrial culture that has survived colonization and near-decimation due to warfare and disease. The Maori experience demonstrates that the stress and trauma of culture and land loss, in a context of colonization and urbanization, and the disruption and displacement of traditional patterns of governance and social control, are reflected in the poor health of the community and in a variety of negative socio-economic indicators. Sachev's research on Maori conceptions and treatments for mental illness further indicates that in order to be effective treatment methodologies must stem from the community of indigenous people.

In terms of research on Native Americans, Young's (1991) content analysis of 26 textbooks on alcoholism revealed that only four of the books had detailed discussions on the subject of Native American alcoholism. Twelve of the books mentioned Native American alcoholism, and ten books do not refer to Native Americans at all. Thus, as is the case with Native Hawaiians, there has not been adequate research exploring the "cultural, psychological, and biological issues of substance abuse in the Native American population."[3] However, despite the dearth of research into Native substance abuse, the effects of that substance abuse translate into the "often tragic realities of Native life" (LaDue, 1994), including the fact that the Indian Health Service has cited alcoholism as the most urgent health problem facing Native Americans (Young, 1991). Duran and Duran (1995) have argued that responsible cross-cultural social scientists must address "the colonial attitude of [the] discipline" (p. 6). One example of such a study seeking to identify barriers and obstacles to obtaining care for alcoholism among Muscogee Indians in Oklahoma found that the Muscogee viewed health as a unity of mind, body, and spirit, admitted to feeling shamed in Western alcohol treatment programs, and believed that treatment should incorporate the entire family (Wing, Crow, and Thompson, 1995). These findings support the argument that treatment design must reflect the world views of the client population.

The research on family-centered and indigenous healing methodology has strong implications for work with Native Hawai-

ians, and points to the importance of incorporating indigenous Hawaiian cultural traditions and world view into effective substance abuse treatment.

Hawaiian Worldview and Health

A central element of the Hawaiian worldview is holism (Mokuau, 1996). Holism is the perspective that all parts of the world are interconnected. In Hawaiian culture, "every aspect of the Hawaiian conception of the world is related by birth and as such, all parts of the Hawaiian world are one indivisible lineage" (Kame'eleihiwa, in Mokuau, 1996, p. 57). Ancestrally, Hawaiians believed that the cosmos were the product of the union of *Wakea* (father Heaven) with *Papa* (mother Earth) and that all living beings were in conscious communication (Kamakau, 1992; Malo, 1951). The emphasis on relationships is reflected in the belief that reciprocal energy binds the individual, the family, the environment, and the spiritual world.

A conceptualization of health according to such a world view would emphasize the relationship and the interconnectedness of all things. It is captured in the phrase "*ola pono*" in which "*ola*" is defined as "life" and "*pono*" is defined as "in perfect order, goodness, of true nature" (Mokuau, 1996, p. 57). In traditional Hawaiian terms, disease and other misfortune was attributed to the loss of *mana*, defined as special power, or lack of *pono*. Illness required the restoration of the imbalance of *mana* or loss of *pono* through analysis of the impaired relationships with self, *'ohana* (extended family), ancestors, the environment, and their spiritual dimensions (Blaisdell, 1993). This distinct multidimensional approach to the analysis of disease and development of treatment deeply contrasts with a Western perspective that emphasizes individualism and autonomy, and holds a fragmented understanding of the human body.

When Ho'omau Ke Ola began offering substance abuse treatment, it was based on a Western biomedical understanding of addiction. However, as the agency began to incorporate Hawaiian values and ways of knowing into treatment design, addiction came to be understood as a lack of *pono* and loss of *mana*. Based on Hawai-

ian understandings of the unity of *ke kino* (the body), *ka mana 'o* (the mind), and *ka 'uhane* (the spirit), addiction came to be viewed as a disruption of individual, family, and community equilibrium.

Culturally Based Concepts

For Ho'omau Ke Ola, the process of incorporating culturally appropriate treatment methodologies began with a client questionnaire administered to clients and their families regarding their experience with substance abuse treatment. The results revealed that a primary issue for Hawaiian people is that treatment must foster cultural identity as the basis for the values, beliefs, attitudes, motivation, knowledge, and skills needed to bring about abstinence and change in self and lifestyle. Secondly, since Hawaiian culture is family-based, the survey brought to light that families must be an integral part of the individual's treatment process rather than collateral contacts.

As a result of this information gathering, Ho'omau Ke Ola began to restructure itself in order to incorporate a treatment modality that was more culturally responsive to its clients. As previously mentioned, in Hawaiian tradition, the ideal concept of health has four basic components: the spiritual, psychological, physical, and familial relationships. Health realized would require positive functioning behavior in all these areas. Ho'omau Ke Ola has sought ways to integrate these key components within the program's treatment regimen. As a beginning step, *na kupuna* (the elders) and natural healers recognized within the community were asked to provide staff training on the history and traditional culture of Hawai'i and its people. Internalizing Hawaiian values and norms became integrated as recovery goals, including a culturally based understanding of health and disease. Hawaiian language became used to describe basic concepts, principles, and behavior promoted as part of client recovery. The process of *ho'oponopono* was adapted as the core of the treatment curriculum. The structure of treatment activities was modified to reflect the Hawaiian value of *Aloha 'Aina*, or love of the land, through outside activities such as camping, family gatherings at local beaches and parks, *opelu* or taro cultivation, and volunteer work

at an aquaculture farm. The program's treatment perspective on family relationships transitioned from seeking individual independence as a final goal to one of helping to build healthy family interdependence.

Among the spectrum of culturally based elements incorporated into the Ho'omau Ke Ola Program, four significant treatment components will be highlighted here as examples of this Hawaiian-based recovery approach: *Aloha 'Aina*, Deep Culture Therapy, Ho'oponopono, and the Wai'anae Diet Program.

Aloha 'Aina

Aloha 'Aina is about what is right and honorable for all Hawaiians—and all people. In traditional culture, the *'Aina*, or land was not bound by private ownership, but rather, held in the collective hands of all Hawaiians to nurture and be cared for, and in return, the *'Aina* would sustain and nurture its caregivers with its plentiful resources. To intentionally harm others or anything in nature was to harm oneself. Thus, the ideal of pursuing harmonious relationships (*pono*) amongst themselves and all in their environment was manifest in the temperament of Hawaiians as recorded by the earliest writers (Blaisdell and Mokuau, 1991).

At Ho'omau Ke Ola, the philosophy of *Aloha 'Aina* is taught to residents through culturally based, outdoor experiential activities. An immersion into the culture assumes a literal meaning as the women and men plunge into the water-filled *lo'i* to plant, weed, and harvest their traditional food, *kalo* or taro. Historically for Hawaiians, the taro plant symbolizes the first-born child of *Papa* (mother Earth) and *Wakea* (father Heaven), and was cherished as the first sibling of the human race. Because of this spiritual connection, taro is believed to hold great *mana*, or life force, which can sustain and nurture all descendants of *Papa* and *Wakea*. While all foods have *mana* and can provide some life force to those who consume them, *kalo*, in Hawaiian tradition, has special *mana* (Shintani and Hughes, 1991).

For clients at Ho'omau Ke Ola, the activities of *Aloha 'Aina* serve multiple levels of healthy change. For many, it may be their first experience doing manual labor in a Hawaiian setting. It is hard, intensive work and many first-timers balk at getting dirty

and sweaty. But over time, their labor is coupled with the ancient stories of their people and land, and they are taught the significance behind their efforts, *malama 'Aina*, or caring for the land. Furthermore, clients learn through experience the importance of such values as cooperation, patience, and working towards *lokahi* (harmony) so that facing difficult challenges can be accomplished well and without unnecessary discord. The significance of such values extend far beyond the boundaries of the taro *lo'i*.

Another aspect of *Aloha 'Aina* involves developing new marketable expertise. Many of the skills taught to the clients are applicable to a newly evolving field in agri-technology. Due in part to the resurgence of the Hawaiian culture and lifestyle, there is considerable interest within the private sector to develop products indigenous to Hawaii that integrate the strengths of Hawaiian agrarian know-how with 20th century technology. One such business is Boke Farms, a lucrative enterprise involved with aquaculture development. The owner of this innovative venture has provided an activity site for volunteer residents to learn all aspects of the business, from acquiring computer skills to learning specific techniques of his aquaculture program. It is quite feasible (and encouraged by the owner) that clients could choose to replicate such a business or use the learned skills for other entrepreneurial projects of this genre (Francis Hun, Owner, Boke Farms, personal communication, June 19, 1996).

Deep Culture Therapy

The history and culture of Hawai'i extends back thousands of years, long before the arrival of European expansionists. The oral tradition of storytelling is one of the most significant ways in which the cultural wisdom was retained. Significant life passages, history, traditions, values, and spirituality were translated through mythological tales passed down from one generation to the next.

Pukui, Haertig, and Lee (1972) note that before Hawai'i had a written language, the memorized chant was Hawai'i's history book and almanac, birth record, and legal document. Ancestral tales also helped the child to learn a kind of "double vocabulary," where words and phrases could have hidden meanings or double entendres. In the Hawaiian *'ohana* (extended family), storytelling

was done as a family activity and contained important learning aspects and protocol, as reflected in the principle, *Nana ka maka. Ho'olohe. Pa'a ka waha. Ho'opili* or "Observe. Listen. Keep the mouth shut. Imitate" (Pukui, Haertig, and Lee, 1972, p. 48).

Ho'omau Ke Ola uses storytelling as a therapeutic method of teaching and healing. The facilitator of the storytelling sessions, *Ka Ho'okele Huaka'i i ka Mo'olelo Ho'ola* or Navigator of Journeys into the Healing Power of Our Stories, is instrumental to the exploration of clients' life stories and therefore to their healing. Hawaiian protocol is followed for opening, conducting, and closing each session. Clients participate in reenacting scenes from ancient stories that are used to introduce modern themes and issues such as drug and alcohol abuse; family violence; spiritual, mental, and emotional breakdowns. The storylines often lead to the clients' revelations of personal stories, of personal tragedies, or pain (Oyama 1996a, 1996b, 1996c, 1996d). For example:

> *A group of people are playing out a dramatic scene. Those on one side of the room, seated on the floor, are hissing softly and moving their arms upward. They are taking the role of Halema'uma'u crater at Kilauea volcano. The group across from them is making undulating motions and sounds for they are playing the role of a turbulent sea.*
>
> *Between these two groups, a man and a woman face off against each other. They are taking the parts of* Kamapua'a, *the Pig god, and* Pele, *Goddess of Fire, the two principals in a traditional Hawaiian story about love and antagonism, harmony, and conflict. Although their story is thousands of years old, the two lead actors seem quite comfortable in their roles. The young man talks boldly and gets plenty of enthusiastic support from the "sea" for his cheeky come-on to* Pele. *The woman, as* Pele, *dismisses him with withering retorts, provoking even more excited hissing from her "volcano."*
>
> *However, the story has added complexity—"*Pele*" is sporting a swollen face and a black eye. "*Kamapua'a*" has had a history of being sexually abused....*

The therapeutic significance of this activity has been a powerful one for clients. First, for some people, these ancient legends may be familiar and familial ones, recounted by their parents, grandparents, or other *'ohana* members. For all, these stories will offer new discovery, akin to finding missing pieces of their cultural and familial identity, their spiritual life story. Secondly, they provide a deeply cathartic experience by revealing painful issues that have long needed to be released and resolved. It is different from psychodrama in that it provides a non-confrontative model within a Hawaiian-specific framework (Oyama, 1996e). This setting underscores the spiritual and cultural mastery of the leader to help evoke group safety and trust, and effectively combine the wisdom and knowledge of ancient times with here and now actualization.

Ho'oponopono

Ho'oponopono is believed to be an adaptation of *ho'omana*, a Native Hawaiian ceremony used in the early 19th century "to prepare the way for treatment" (Boggs and Chun, 1990). Traditionally understood as a practice engaged in by families, *ho'oponopono* was practiced by one-third of self-defining Native households according to a study conducted in 1976 (Alu Like, 1976). As Boggs and Chun (1990) have posited, accounts of what constitutes *ho'oponopono* vary among observers, and according to different historical circumstances. However, the general meaning of the term *ho'oponopono* is to "set things right" in a spiritual, physical, and emotional sense. According to Pukui, Haertig, and Lee (1972), whose work documents 20th century Hawaiian culture, *ho'oponopono* was at the heart of Hawaiian culture, and was a method for the restoration and maintenance of healthy relationships between and among family, or *'ohana* members, and between *'ohana* and their *'aumakua*, or ancestral spirits. Christian missionaries and Christianized Hawaiians contributed to the discrediting of *ho'oponopono*, which declined and went underground, emerging again as a variety of associated practices given different labels. In contemporary Hawai'i, *ho'oponopono* is being used in a variety of clinical and non-clinical settings as a method of treatment, prevention, and therapy (Boggs and Chun, 1990). This

process has adapted to the challenges facing Native Hawaiians in the late 20th century and has shifted from a primarily family-centered intervention to one that is also useful in a community or clinical setting that is not necessarily family-based.

Ho'oponopono is a healing method that depends in large part on the *mana* of the leader, who is usually a *kupuna*, or other highly respected person. The process includes inquiry into the "causes of the problem, expression of feelings by all concerned, apology and forgiveness." The goal of *ho'oponopono* is to discover the source of the problem; to cure or prevent further illness, imbalance, depression, or anxiety; to resolve personal or interpersonal issues; and to untangle and free suffering participants from "transgressions against spirits and gods as well as humans." Apology and forgiveness are considered essential elements of a successful *ho'oponopono* session (Boggs and Chun, 1990).

At Ho'omau Ke Ola, *ho'oponopono* has evolved as a therapeutic intervention that formalizes a process of conflict resolution and self-reflection and provides a ritual of apology and forgiveness between clients and their families, between clients and staff, and among staff. It is based upon a conception that views disease as reflecting a lack of internal balance (*mana* and *pono*). *Ho'oponopono* focuses on restoring spiritual, physical, and emotional balance and represents the core of Ho'omau Ke Ola's treatment program. *Kupuna* conduct *ho'oponopono* with individuals first entering treatment so that they may explore and help deepen the clients' commitment to recovery. The clients will also experience this process with their families at least once during their treatment episode.

One specific use of *ho'oponopono* is to interpret persistent bad dreams, or *'uhane hele* (wandering spirit). In *ho'oponopono* sessions, a client's distress from persistent bad dreams can be interpreted according to ancestral Hawaiian wisdom, which identifies dreams as a dimension of an alternative reality parallel to the reality of the waking world. In traditional Hawaiian perspective, dreams produce "symbols which have causal or purposive meanings, with some definite relationship to reality [...and were believed to be caused] by the movement of one's *'uhane*, or spirit, or by the *'aumakua* (ancestral spirits)" (Kanahele, 1986, p. 46). Dreams were

related to subconscious desires or caused by psychological reactions. Decoded, dreams revealed the future, posed solutions to problems, located hidden places and lost persons, remembered past events, and warned of disaster (Kanahele, 1986).

'Uhane hele is a frequent diagnosis of Ho'omau Ke Ola clients, and a *kupuna* is involved in the interpretation of client dreams (Marie Ruane, Kupuna/Cultural consultant, personal communication, June 14, 1996). *'Uhane*, or spirit, is believed to sometimes wander causing dreams that, although disturbing, may be beneficial. However, a chronically wandering *'uhane* is a sign of trouble. The diagnoses of *'uhane hele* (wandering spirit) as applied to Ho'omau Ke Ola's chemically dependent clients struggling for recovery aptly symbolizes both the spiritual and cultural distress of clients. A common treatment recommended by the *kupuna* is for the individual to immerse oneself in the *kai* (sea) in order to anchor the *'uhane* and remove any roaming spirit of another.

The Wai'anae Diet Program

The loss of *pono* is also linked in a physiological sense by imbalances within a person's diet and level of physical activity. The Wai'anae Diet Program (WDP), developed through the Wai'anae Coast Comprehensive Health Center in 1987, is a viable response to the high rates of obesity and chronic disease among Native Hawaiians. This unique program "was designed as a culturally appropriate, community-based intervention with special consideration given to accessibility, reasonable cost, and ability to be propagated and sustained in the community" (Shintani et al., 1994). Shintani describes the foundation of this approach, which is based on eight primary concepts:

1. *Non-calorie-restricted obesity protocol:* Food is chosen by its bulk and low fat, low energy density nature rather than by quantity or calories. All food has a cultural component (e.g., foods eaten in Hawaii before the onset of Western influence including taro, poi [a pounded form of taro], sweet potatoes, yams, breadfruit, fruit, fish, and chicken).
2. *Dietary clinical intervention:* Foods from traditional diets of all cultures are used as an intervention for chronic disease

(e.g., diabetes, cardiovascular risk, cancer, and obesity. Cooking methods are steaming, baking, broiling, and boiling). Nothing is fried in oils.

3. *Culturally Sensitive Health Education:* The WDP integrates a cultural foundation and education within the diet approach. Traditional Hawaiian beliefs regarding food provide an opportunity to present Hawaiian history in the form of cultural teachings.
4. *Transition diet:* Different food choices, cooking techniques, and equivalent food substitutions are allowed as part of sustaining overall healthy eating patterns and lifestyle.
5. *Whole-person approach:* Traditional Hawaiian healing dealt with the whole person and that person's relationship to the universe, *lokahi i ke ola* or *ola lokahi*. The WDP includes interventions that address the mind and emotional, physical, and spiritual well-being in culturally related ways (e.g., *hula* dancing as an acceptable form of physical activity).
6. *Group 'ohana support:* One of the most powerful tools of the diet includes the mutual support and camaraderie that creates the core of family or *'ohana*.
7. *Communitywide intervention:* The program not only incorporates a culturally appropriate educational component, it also uses many similar elements of large communitywide health promotion efforts. These elements include: assessment of community needs, utilizing existing community networks and resources, using the mass media, and fostering other community-based programs.
8. *Role modeling:* The basic philosophy is that "everyone is a teacher and everyone is a student." Community leaders are employed as viable conduits to other community members' participation in the program.

At Ho'omau Ke Ola, the Wai'anae Diet Program is integrated as a component of recovery. Staff, as well as clients, are encouraged to adopt the program as part of their lifestyle. The daily menu of the residential program is based on the principles of the WDP, and a community-based specialist assists the residents and staff in meal preparations. Additionally, residents attend the health education classes as part of their weekly schedule. For many cli-

ents suffering from physical illness and neglect as a result of their drug and alcohol addictions, the Wai'anae Diet provides an achievable solution to address serious health problems and a model for healthy living. Moreover, the cultural teachings and philosophy of the diet program blend seamlessly with that of Ho'omau Ke Ola's recovery framework.

Conclusion

While there is no single recommended model or protocol of treatment that befits all people, many of the innovative strategies utilized by Ho'omau Ke Ola are based on principles that can be considered multicultural and reinterpreted in culturally specific ways. Although these principles and values are ancient in their origins, they are highly relevant to the treatment of disease in the late 20th century.

The cultural concept of *pono*, or internal balance, is a core construct parallel to "recovery" in that both promote a holistic and comprehensive approach to health that includes accounting for one's lifestyle and physical, emotional, and spiritual well-being. Hawaiian values associated with this holistic viewpoint include *lokahi* (healthful harmony), nurturing and being nurtured by one's *'ohana* (extended family), strengthening *mana* (life force), respecting and learning life lessons from *na kupuna* (the elders), honoring your *'aumakua* (ancestral spirits), and caring for your environment, *Aloha 'Aina*.

The framework of recovery includes many similar elements within its structure. For example, relapse prevention focuses on self-monitoring internal and external signals that preclude relapse and then developing healthy, non-using alternatives. Relapse signals often reflect a lack of attentiveness to one's physical, emotional, and spiritual well-being (i.e., HALT, an acronym for the relapse precursors—hungry, angry, lonely, tired). Group support, whether it be immediate, extended and/or surrogate family, is viewed as a critical component of sustaining abstinence and affected recovery. The notion of "making amends" to people impacted by an individual's addictive behavior is not unlike the more structured process of *ho'oponopono*, where conflict resolution and forgiveness is sought in restoring *pono*.

In appreciating these comparisons, however, it must be noted that the unique strength of Ho'omau Ke Ola's model is that it distinguishes the significance of restoring the empowerment of the Hawaiian individual, family, and community as a goal of recovery. Empowerment gained through Hawaiian ancestry and culture is valued as a formidable deterrent to returning to an addicted existence and, moreover, holds within it the philosophy, values, and practices that will help sustain a healthy, drug-free life.

In summary, the strengths of this culturally based model have been, perhaps, most succinctly reflected by those at Ho'omau Ke Ola:

> *Why not take people out of the four walls of clinics and plunge them knee-deep into the taro lo'i? Why not take them out to paddle canoes through the thundering waves of the Wai'anae Coast? Why not take them out into nature to find peace while sleeping under the stars? Why not provide opportunities for them to find self-esteem in their native language, music, chants and stories? Why not return them to their kupuna, their elders, who are a traditional source of wisdom and guidance?*
>
> *You can see it in the faces of the treatment group in the room, as they stand together to chant, in Hawaiian, a pule to their ancestors for knowledge and wisdom. Their voices are hesitant at first. Then, gaining strength from each other, they join in a powerful and intense appeal that seems to extend beyond the room, beyond the neighborhood and echo off the walls of Ka'ala, the mountain awakening. They are beginning to find their real selves.*
>
> (Ho'oipo DeCambra, HKO Executive Director, personal communication, July 22, 1996)

Endnotes

1. Ho'omau Ke Ola means "to perpetuate life as it was meant to be," a name that was given by a respected *kupuna* (elder) and traditional healer.
2. The Native Hawaiian Study Commission notes that "Federal studies have demonstrated that self-reported alcohol use is underreported by nearly 50 percent. This phenomenon is likely to be even greater for the usage of illegal substances

such as marijuana or cocaine." (NHSC 1983: 57)

3. Significantly, Young (1991) found that the ten textbooks that failed to mention Native Americans also failed to mention Blacks and Hispanics.

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5

Culture as a Protective Factor in Two Prevention Programs for Hawaiians

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Introduction

Nā Hawai'i, the indigenous inhabitants of Hawai'i, are a people rich in cultural values and traditions but impoverished in health. This contradiction is the result of historical events that have influenced their cultural mores and health status. Before the arrival of Westerners in 1778, Hawai'i is described as having a well-developed system of institutions that supported a thriving people (Blaisdell, 1989; Ii, 1983; Kamakau, 1991). A reciprocal relationship between person and environment guided this system, underscored the formation of cultural values and traditions, and contributed to the population's robust and healthy status. The arrival of Westerners adversely affected Hawai'i's cultural institutions, values, and traditions as well as the health of its native people (Daws, 1974; Fuchs, 1961; Kame'eleihiwa, 1992; Mokuau & Matsuoka, 1995). For example, during the 1800s, essential features of Hawaiian culture—such as religion, land stewardship, and language—were invalidated (Blaisdell, 1989; Kame'eleihiwa,

1992) and significant numbers of Hawaiians died, primarily from diseases introduced from the West (Stannard, 1989). Although more than 200 years have elapsed since Westerners first arrived in Hawai'i, the health status of Hawaiians remains poor (Blaisdell, 1993; Look & Braun, 1995; Johnson & Oyama, 1996). However, a renaissance of Hawaiian culture is under way, and the resulting renewal of institutions, traditions, and values could be critical to the design and development of programs and services that seek to enhance Hawaiian health.

The move toward such programming reflects acknowledgment of the importance of cultural competence, which promotes informed responses to ethnically diverse groups based on an understanding and appreciation of their culture (Brislin, 1993; Lum, 1996; Lynch & Hanson, 1998; Orlandi, Weston, & Epstein, 1992). The Center for Substance Abuse Prevention has specified the following features that are basic to culturally competent programs and services:

- Respect for the unique, culturally defined needs of various client populations.
- Acknowledgment and acceptance of cultural differences and their impact on service delivery.
- Understanding that people from different racial and ethnic groups are usually best served by persons who are a part of or in tune with their culture.

Inherent in these features is the recognition that the diversity evident among cultures also exists within cultures. Programs and services that address people's unique cultural needs enhance staff's understanding of clients, increase clients' acceptance of the intervention, and, ideally, improve health of the target population.

This chapter describes two substance abuse prevention programs in Hawai'i that emphasize a culturally competent perspective. While each program is different from the other, they share the common feature of having infused Native Hawaiian traditions and values into their program design, implementation, and evaluation. These programs acknowledge culture as a protective factor in the prevention of substance abuse.

The chapter provides a brief profile of the health status of Hawaiians, with a focus on alcohol and drug abuse; examines the common principles that undergird the two prevention programs; and describes how these two programs have integrated cultural sensitivity into prevention services. As advances in technology extend our global reach, opportunities to appreciate and learn from diverse cultural groups increases. While the information contained in this chapter is specific to Hawaiians, we hope that prevention professionals find it useful in working with other groups with similar needs and backgrounds.

Health, Socioeconomics, and Substance Abuse

Native Hawaiians constitute approximately 13 percent (138,742) of Hawai'i's total population (1,108,229) (U.S. Department of Commerce, Bureau of the Census, 1991, 1993). Only a small percentage of these people are of pure Hawaiian ancestry; 95 percent are of mixed ancestry. Comparisons of overall health of Hawaiians with other ethnic groups in the State yield significant disparities (Blaisdell, 1993; Look & Braun, 1995; Mokuau, 1996; State of Hawai'i Office of Children and Youth, 1994):

- Hawaiians have the lowest life expectancy in the State.
- From 1910 to 1990, mortality rates from leading causes of death were higher for Hawaiians than for other races.
- From 1991 to 1993, Hawaiians had the highest infant mortality rate in Hawai'i, with more than 10 infant deaths per year.

Sociodemographic characteristics such as low income, poverty, and low educational achievement reflect risk for and vulnerability to poor health. A State survey in 1988 showed that Hawaiians were disproportionately represented in lower income brackets, with 19 percent of Hawaiian families earning less than $15,000 per year, compared with 13 percent of families in other ethnic groups (Papa Ola Lōkāhi, 1992). In 1989, 14 percent of Hawaiian families had incomes below the poverty level, compared with 6 percent of all families living in Hawai'i (Office of Hawai-

ian Affairs, 1994). Income levels are often related to educational achievement. While the numbers of Hawaiians (11 percent) enrolling in the State's university system has increased, in 1992–93 only 8 percent graduated with degrees (Office of Hawaiian Affairs, 1994).

Health and socioeconomic status in Hawaii are closely related to alcohol and drug abuse. For example, alcohol and drug use increases risk for poor pregnancy outcomes such as infant mortality, fetal alcohol syndrome, and low birth weight (U.S. Department of Health and Human Services, 1990), and this relationship is evident in the pregnancy outcomes of Hawaiian women. Hawaiian women have the highest rate of smoking, drinking alcohol, and using illicit drugs during pregnancy, compared with other ethnic groups in the State (State of Hawai'i Office of Children and Youth, 1994). This broadly corresponds to the high rates of infant mortality and fetal alcohol syndrome reported among them.

Evidence of serious substance abuse problems among Native Hawaiians in Hawai'i is mounting (Mokuau, in press; Mokuau, 1995). State surveys indicate that among Hawai'i's ethnic populations, Hawaiian students have the highest rate of heavy alcohol use (State of Hawai'i Office of Children and Youth, 1994) and Hawaiian adults have the highest rates of acute and chronic drinking (Office of Hawaiian Affairs, 1994). Evidence of alcohol and drug problems among Hawaiians is also found in crime statistics: Hawaiian juveniles have higher rates of arrest for possession of marijuana and opium or cocaine than "all ethnic groups," and arrest rates for Hawaiian adults possessing illicit drugs are comparable with or slightly higher than the rates for "all ethnic groups" (Office of Hawaiian Affairs, 1994). The Hawai'i Paroling Authority indicates that approximately 60 percent of Hawaiian ex-offenders are rearrested because of substance abuse problems (ALU LIKE, Inc., 1995).

Two Prevention Programs for Hawaiians: Different Missions, Common Principles

The prevention programs we consider here were developed with an eye toward the relationship among the health status, socio-economic context, and substance abuse problems of Native Hawaiians living in their homeland. They address the specific needs of Hawaiians with alcohol and drug problems as they relate to an array of other health and social problems. Both programs target populations at high risk for substance abuse: one deals with youth at risk and their families; the other deals with ex-offenders and their families.

The Native Hawaiian Safe and Drug-Free Schools and Communities Program (NHSDFSCP) was established in 1987. It is funded by the U.S. Department of Education and administered by the Kamehameha Schools Bishop Estate, an educational institution for children of Hawaiian ancestry. The program's mission is to create and assist in the development and implementation of culturally appropriate substance abuse prevention activities for Hawaiian youth and their families. The program conducts the following activities: (1) needs assessment and resource identification for program development; (2) substance abuse prevention curriculum development; (3) dissemination of program materials; (4) outreach to agencies that provide substance abuse services in high-density Hawaiian communities and coordination of those services; and (5) program administration and evaluation. Although materials are developed with the needs of Hawaiians in mind, they are disseminated to a broad, multicultural, cross-section of the State's population.

The second program, Substance Abuse Prevention Services for Native Hawaiian Ex-Offenders (SAPSNHEO), is a program of ALU LIKE, Inc., an organization whose mission is to help Hawaiian natives achieve their potential. The program was established in 1986 to help ex-offenders find employment. It expanded to include a focus on substance abuse prevention in 1989. The program's mission is to help Hawaiian ex-offenders avoid

reincarceration resulting from substance-related offenses and to improve their attitudes and behaviors regarding employment and their relationship with significant others. The program is administered throughout the State and funded by a Federal grant from the Department of Justice. It operates on the islands of O'ahu, Hawai'i, and Moloka'i. The program provides self-esteem workshops, pre-employment workshops, employment referrals, and traditional cultural healing methods such as *kūkākūkā* (discussion, conference) and *ho'oponopono* (family counseling).

A Common Foundation

Despite their different missions, these two programs are guided by common principles. First, both view culture as a protective factor among Hawaiians. According to McCubbin, McCubbin, Thompson, and Thompson (1995), three personal resources—each with a cultural derivative—partially define the individual's and the family's strengths and capabilities. These resources are a sense of mastery (the belief that one has some control over one's life), self-esteem (a positive judgment about one's self-worth), and ethnic identity (the use of ethnicity and culture to guide one's functioning). They can increase a person's or family's capabilities to mediate stress (e.g., and avoid substance abuse) and can thereby enhance resiliency.

Second, both view individual and ecological factors as important in prevention planning. Sasao (in press) notes that most approaches to substance abuse prevention examine the impact of individual-level risk factors, but it is also essential to consider psychosocial risk factors, which are culture-bound and context-dependent. He states that specific Asian-American cultures tend to focus on the context in which the self is viewed, and so even seemingly individual behaviors (e.g., decisions to experiment with alcohol) need to be understood in the social contexts within which they occur. The importance of viewing the self in relation to the collective unit appears to hold true for many Pacific Islander groups, including Native Hawaiians.

Third, both programs emphasize the collective and its connection to self-determination. Self-determination in Pacific Islander cultures is defined by collective affiliation rather than by

individualism (Ewalt & Mokuau, 1995) and refers to the rights of a people to make their own decisions through informed, active, and responsible participation. Hawaiians are currently considering the possibility of self-determination and sovereignty and the ramifications of self-governance on their health and well-being (Johnston, 1996). Resilient and thriving Hawaiian families are key to successful self-determination and leadership.

These three principles are manifested in the two programs in the following ways:

- Both use culturally sensitive staff in all stages of development, implementation, and evaluation.
- Both use culturally relevant program materials and processes.
- Both rely on broad networking among families and communities.

We now consider each program in terms of these features.

Native Hawaiian Safe and Drug-Free Schools and Communities

Culturally Sensitive Staff

NHSDFSCP is administered by people who are committed to preventing substance abuse among Native Hawaiians and who solicit broad participation from culturally sensitive persons and institutions. Staff are selected on the basis of their cultural awareness, demonstrated experience, and sensitivity to the development of materials and services that address the needs of Native Hawaiians. Cultural consultants such as Hawaiian *kūpuna* (elders) and Western-educated scholars periodically review concepts, language, and approaches for cultural appropriateness. The program uses focus groups of Hawaiian youth and adults to gain information about specific communication and learning styles among Hawaiians. Finally, Hawaiian language, images, and symbols are continuously assessed using relevant research and institutional review processes.

Culturally Relevant Materials and Networking

Program content and presentation reflect Hawaiian practices and values. The curriculum and services have emerged from careful analyses of Hawaiian values and traditions, but they have relevance for other groups. Brough and Kelly (1995) identify key Hawaiian practices and values that are evident in the educational constructs of NHSDFSCP: communication, learning styles, symbols and visual cues, and values and relationships.

Communication. Communication is fundamental to culturally appropriate programs and products. The use of native language and its verbal and nonverbal idiom helps build a meaningful frame of reference for the individual and the community. A local dialect of pidgin English is the functional means of oral communication among many Hawaiian youth; it includes special nuances in voice volume, rate of speech, and pauses. Nonverbal communication, such as gesturing and touching, also is important in many Hawaiian communities.

One example of NHSDFSCP's use of relevant communication is a 30-minute prevention video titled "Nānākuli High." The video, produced by Nānākuli High School students, features students speaking in "functional vernacular as well as standard English" about the substance abuse issues that affect them. In addition to the language, the neighborhood scenes, community activities, student dress, and Hawaiian music present an authentic picture of Hawaiian youth.

Learning Styles. Learning styles often vary by ethnic/cultural groups as a result of different sociolinguistics, cognitive styles, motivation systems, and even social organizations. For example, Hawaiians have a habit of interrupting a conversation. However, Kawakami and Au (1986, cited in Brough and Kelly, 1995) characterize this habit as a style of verbal interaction called "talk story," in which cooperative learning takes place as different persons contribute to the narrative. They provide this illustration:

> *In talk story, children cooperate in producing narratives. That is, the first child begins a story, for example, about a camping trip. A second child will join in, adding another event or detail to the*

narrative. Other children may also join in the conversation. The children will then continue the narrative by speaking alternately with one another. (p. 17)

NHSDFSCP's videotape entitled *"E Ho'omaka Hou Kākou!"* (Let's Start Anew!) is an example of talk story. The videotape shows four individuals and their families sharing stories about addiction and recovery. The videotape emphasizes the powerful influence family members have on alcohol- and drug-using behaviors, as well as on recovery. The story is authentic and multifaceted because it presents the real-life experiences of several people.

Symbols and Visual Cues. Symbols and visual cues are culturally diverse. The extent to which instructional materials can capture their variety affects learning. These symbols and cues provide contextual familiarity, which makes clients feel more comfortable with and confident in the learning process.

NHSDFSCP has several instructional products that provide contextual familiarity through symbols and visual cues. One product, a comic book entitled *"Ke Koho Pololei"* (The Right Choice), uses symbols and visual cues familiar to Hawaiian children to deliver a prevention message. For example, scenes in a Hawaiian high school depict students of mixed ancestry, a skateboarder on the street, a student wearing a cap backwards, a Hawaiian flag in the background, and surfing messages on bulletin boards.

Another product, a poster, shows the *"pōhaku ku 'i poi"* (poi pounder) used by Hawaiians to prepare poi, a food staple in the Hawaiian diet. Historically, this tool was important for survival and was taken care of by family members. The pōhaku ku 'i poi is also a symbol of perpetuation of Hawaiian culture from generation to generation. The message in this poster supports self-identity and cultural pride as positive influences in the prevention of substance abuse.

Values and Relationships. The integration of cultural values and relationships into programs can facilitate service delivery and improve outcomes. The values of *aloha* (love and compassion), *ho'omana* (spirituality), and *pono* (proper behavior) are central in Hawaiian culture. These values transcend Hawaiian culture to hold prominence in many cultures and reflect the increasingly global nature of the world.

One NHSDFSCP product that captures Hawaiian values and relationships and relates them to substance abuse prevention is the *Lōkāhi* Wheel, which is based on the Hawaiian world view, *lōkāhi* (balance, harmony, and unity for the self in relationship to the body, mind, spirit, and rest of the world). The wheel exemplifies the integration of various aspects of one's life (i.e., family and friends, emotions and feelings, spirituality and soul) and the need for maintaining balance among them.

Another product, "Family Laundry," is a play that uses music, comedy, and drama to chronicle the development of substance abuse in one Hawaiian family and the evolution of familial relationships through the progression and resolution of the problem. The play focuses on several Hawaiian values that are integral to familial relationships. *'Ohana* (family) is illustrated in the play by the efforts of the wife and children to stabilize the family by assuming extra responsibilities when the father begins abusing substances. Their actions illustrate *pono* (proper behavior) in contrast to the father's substance abuse, which prevents behaviors that are right, considerate, and proper.

A third product that integrates cultural values is *"E ho'omaka Hou Kākou!"* the videotape mentioned earlier. The video emphasizes 'ohana, *mālama* (to care for), and *laulima* (working together). It's use of the aloha chant is especially noteworthy. This chant has two special functions: It is a blessing for all those who view the video, and it gives permission to those in the video to share their stories.

Program Evaluation

NHSDFSCP is evaluated annually by an independent organization. Evaluators use key informants, focus groups, conference presentations and feedback, and tracer studies to assess the cultural sensitivity of NHSDFSCP products and services. Table 5.1 presents the results of evaluators' surveys of key informants regarding the cultural sensitivity of NHSDFSCP products and services for the years 1990 through 1995. Three groups of people contribute to an evolving model for evaluating cultural sensitivity in NHSDFSCP: cultural consultants (e.g., kūpuna) and scholars, users of the products and services, and the program's management and staff.

Annual evaluations of the program's cultural aspects, staff services, and products have been "outstanding" consistently on a variety of measures. In general, key informants felt that services and products fit the "local culture" of Hawai'i, were appropriate for Hawaiian constituents, and instilled a greater sense of ethnic pride and identity. Users of the products who completed satisfaction surveys in 1994–1995 gave services and instructional products scores of 9.5 and 9.7 on a scale of 1 (lowest satisfaction) to 10 (highest satisfaction). It is believed that the cultural appropriateness of these educational products lends to their favorable reception by users and thus helps prevent alcohol and drug abuse.

Table 5.1. Cultural sensitivity of NHSDFSCP products and services, key informant feedback

YEAR	SUMMARY
1990–91	93% indicated that services and products fit the "local culture"; 92% indicated that both were appropriate to Native Hawaiian constituents
1991–92	Average satisfaction rating of services was 9.0 on a scale of 1–10, with 10 being the highest. All instructional materials were rated between 7 and 9 on a similar scale. Students in a tracer study said "the theme, language, and scenes" (in the materials) had special meaning for Native Hawaiians, and the overall message was appropriate for students of all ethnic backgrounds
1992–93	Numerous respondents commented about the relevance for Hawaiian (ethnic) culture and about the use of the Hawaiian language. NHSDFSCP staff also demonstrated Hawaiian values in the way they interacted and responded to clients, and in the way they processed thoughts and actions. Many felt that both the processes and content embedded in the program were congruent with Hawaiian orientation and affirmed the worth of Hawaiian values. A generalized response centered around the notion that appropriate cultural sensitivity reflected the "local" environment, which encompasses more than Hawaiian ethnicity. Comments included "kids can relate to the peer pressure in the video, the materials are germane to their environment, the stickers fit the youth culture," and so forth. The materials were deemed relevant to the

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	way children and teens grow up, they addressed the skills necessary for survival in the local community, the home, and contemporary culture. In this sense, the services, products, and events were viewed as appropriate for Hawaiians and non-Hawaiians alike.
1993–94	Overall, respondents indicated that the use of Hawaiian language, culture, and ideas or values in the materials and services contribute to a near "perfect fit" between NHSDFSCP and its clients. Some respondents talked about how the program enhances a caring and sharing approach, rather than a Western, lecture-style approach. Again, however, the value of the program to both Hawaiians and non-Hawaiians was frequently mentioned.
1994–95	On a rating scale of 1–10, the average satisfaction rating for NHSDFSCP services was 9.5 and for instructional materials and products, 9.7. Every comment was positive regarding cultural sensitivity and appropriateness. The consistent message was that NHSDFSCP services and products were culturally sensitive.

Substance Abuse Prevention Services for Native Hawaiian Ex-Offenders

Culturally Sensitive Staff

SAPSNHEO's administrator works under the supervision of the president of ALU LIKE, Inc. The programs primary staff are Hawaiian kūpuna (elders) who reside on the islands of O'ahu, Hawai'i, and Moloka'i. Kūpuna (grandparents or someone from the grandparent generation) are accorded great respect. Traditionally, these elders have been considered "the accepted sources of wisdom, the arbitrators of family disputes, the troubleshooters in family problems, and the custodians of family history" (Pukui, Haertig, & Lee, 1972, p. 126). The importance of Hawaiian elders to cultural identity and family healing (Mokuau & Browne, 1994) explains their centrality to the work of SAPSNHEO. ALU LIKE, Inc., prepares kūpuna for their work with former drug offenders by providing substance abuse prevention workshops, conferences, and other training opportunities. Kūpuna help former drug of-

fenders increase their self-esteem, improve their cultural identity, and avoid drug use and, ultimately, rearrest.

Culturally Relevant Materials and Networking

All of SAPSNHEO's services—from one-on-one interviews in correctional facilities to self-esteem workshops, networking, and referrals to other community services—are infused with Hawaiian practices and values such as *'ohana* (family), *lōkāhi* (unity), *kōkua* (assistance with no expectation of something in return), *laulima* (working together), *mo'oku'auhau* (genealogy), and *Aloha 'Āina* (love of the land and its people).

> *Values determine the importance we assign to everything in our lives. . . . Every day we are confronted with circumstances and choices that test our personal values and require decisions that will either strengthen or weaken these values. . . . After we have established our values, we must apply them to our lives. The daily application of our values is an unrelenting challenge.* (Napeahi & Pe'a, 1996)

Traditional healing methods such as kūkākūkā (discussion, conference) and ho'oponopono (family counseling and problem-solving) are the program's strongest reflection of cultural sensitivity.

Kūkākūkā is the method through which individuals, in discussion or conference with a kūpuna, seek to know themselves better. Here, the focus is on the person, not the problem. Drug abuse is seen as a symptom of other problems in a person's life. To overcome the abuse, the person must deal simultaneously with issues of self-esteem and identity. The kūkākūkā, therefore, focuses on helping the person regain self-esteem and identity. Identity, in large part, is related to emotional maturity. Napeahi and Pe'a's (1996) list of traits of the emotionally mature and emotionally immature person (table 5.2) is often used as an aid in client self-examination. For example, emotionally immature persons who blame others for their alcohol abuse will not be able to stop drinking until they take responsibility for their own choices. Thus,

the kūkākūkā focuses on these person's choices and on convincing them that they are important and that their choices should reflect their importance.

Table 5.2. Traits of maturity and immaturity

MATURE PERSON	IMMATURE PERSON
Has friends among both genders	Is jealous of others
Controls temper	Wants needs met immediately
Tries to see the excellence in others	Does not control temper
Evaluates situations and behaviors rather than judging	Belittles the accomplishments of others
Is willing to wait for things he or she wants	Is inquisitive about other people's affairs
Appreciates the other person's view	Lives in a dream world without action
Has high self-esteem	Blames others for his or her mistakes
Enjoys other people's success	Plays jokes on others and cannot take a joke
Accepts responsibility	Is dependent on parents and others
Is adaptable	Believes that people are against him or her
Respects authority	Enjoys other people's failures
Lives in a world of reality	Is boastful
Sees sex in its proper relationship to life	Is aggressive and domineering
Has a sense of humor	Is self-centered
Gets along with parents and friends	Has unhealthy or unwholesome attitude toward sex
Is not jealous of others	Shows lack of consideration for others
Is able to see a job through to finish	Has low self-esteem
Learns from mistakes	Labels and judges situations, self, others

Source: Napeahi & Pe'a (1996). *Guide through the ho'oponopono process.* Honolulu: ALU LIKE, Inc.

Ho'oponopono is the primary Hawaiian healing method used by SAPSNHEO. This cultural practice has gained renewed importance during the last three decades (Boggs & Chun, 1990; Mokuau, 1990; Paglinawan, 1983). Ho'oponopono is generally

used to solve family problems, but recently, its use has expanded to nonrelated persons. In SAPSNHEO, the process involves the ex-offender, family members, and significant others. As with kūkākūkā, the focus is not on substance abuse but on the person and family. Ho'oponopono means "to set right," and the challenge for kūpuna is to help ex-offenders become committed to themselves and to the well-being of their families.

The kūpuna conduct ho'oponopono with their clients and hope that clients will practice it regularly on their own to cope with general stresses and prevent substance abuse problems. The content and process of ho'oponopono, which contribute to its power, are described in the following 10 steps (Napeahi and Pe'a, 1996):

1. *Pule Wehe* (Opening). This opening prayer or declaration calls for truth, love, and respect, and a commitment to resolving the issues. It states the purpose of the gathering: to restore harmony within the individual and family unit. At this time, all participants reflect on their personal responsibility for resolving the problem through the process they are entering into.
2. *Kūkulu kumuhana* (Pool resources—build a work source). In this step, participants agree to work together and pool their spiritual strength in order to identify and solve the problem. They agree to follow certain ground rules, including listening intently while others speak and speaking in turn through the *haku* (leader).
3. *Mahiki* (Peel away). In this step, issues and problems are identified and stripped away one by one, just as the parts of an onion are peeled away. The deepest problems—emotional entanglements—are believed to be at the core of substance abuse. To reach them, the outer layers must first be identified, resolved, and peeled away. All participants contribute to the discussion in this step.
4. *Hihia* (Upsets/entanglements). Once participants have identified the issues and problems, they must deal with the emotional entanglements. In this step, the relationship between the problems and emotional upsets experienced by the family is identified.

5. *Hala* (The problem). Here, the core problem is clarified. This problem is perceived to be at the root of many other problems.
6. *Mihi* (Forgiveness). In this step, the kūpuna summarize and restate the problem without passing judgment. Clients seek forgiveness for the emotional pain they have caused. Forgiveness is imperative and is sought for *each* individual concern. Restitution is considered.
7. *Kala* (Release). With forgiveness, clients are freed from their emotional entanglements. They often manifest this release with positive actions such as hugging or crying tears of joy.
8. *Oki* (Sever, cut). Once clients are released from entanglements, they can separate from the issues and problems. This act brings closure, as clients let go of the negative origins and consequences of a concern. The issues are cut and released, never to resurface.
9. *Pani* (Closing). This step represents both the actual and symbolic closing of the session. The kūpuna summarize the events of the ho'oponopono and list the family's strengths. The closing ritual might be an offering to the *aumākua* (ancestral gods) or a cleansing bath like a baptism. People are commended for their efforts.
10. *Pule Ho'opau* (End). The session typically ends with a prayer or declaration that the problem is solved. At this stage, restitution or followup responsibilities for clients are enumerated.

Through ho'oponopono, ex-offenders come to see how their values and behaviors influence their children. They learn that they have the important responsibility of providing the best guidance and example they can. Clients discuss the problems and emotional entanglements that result when their children observe and emulate their drinking and drug-using behaviors. On occasion, reference to generational patterns of substance abuse are discussed. Sometimes, at the core of the emotional entanglement are clients' relationships with their parents; understanding the impact of that relationship on their own children is paramount to complete resolution.

Ho'oponopono is often based on spirituality or religion, and thus begins and ends with prayer. In the traditional practice of ho'oponopono, the family beseeches indigenous gods and aumākua to bless and guide the session. In contemporary times, families beseech either indigenous gods or the Christian God and, on occasion, both. In SAPSNHEO, spirituality is introduced to ex-offenders and their families because kūpuna have reported that these clients often do not know how to pray but are anxious to learn. Ex-offenders and their families are free to accept or reject spirituality and its inclusion in the healing process. One Hawaiian kūpuna captured the importance of spirituality to the vision of SAPSNHEO, as follows:

> *Kūpuna touch spirit with spirit. We are all related, everyone who is Hawaiian. We are related to each other back through generations. Therefore, I am removed from being a stranger. I am a friend. I am Aunty Nona. . . . If they cry, I cry with them. . . . If they laugh, I laugh. It is sharing. It is listening to the whole individual. I do not see only a part. I do not see an ex-offender. I see a person.* (Keonaona, cited in Page, 1992, p. 5).

Program Evaluation

In 1994–95, SAPSNHEO served a total of 650 people (341 ex-offenders and 309 family members). These numbers far exceeded the program's original projection of 250 clients (150 ex-offenders and 100 family members). Only 9 of the 341 ex-offenders were rearrested for substance abuse violations. (The recidivism rate for all causes was 3 percent.) The rearrest rates for SAPSNHEO clients are exceedingly low, compared with the 60 percent rate for Native Hawaiian drug offenders reported by the Hawai'i Paroling Authority. In addition, program records document that 97 percent of ex-offender clients demonstrated greater knowledge of various risks for substance abuse after participating in healing sessions and workshops. SAPSNHEO has received the following awards in recognition of its success: the 1991 National Exemplary Prevention Program Award, the 1994 Healthy Hawai'i 2000 Community Health Promotion Award, and the National Community Health Promotion Award.

Conclusion

Using cultural strengths as protective factors against alcohol and drug abuse has proven to be a successful strategy for two very different prevention programs in Hawai'i. These programs view cultural identity and cultural pride as positive factors in the prevention of substance abuse; both programs place great priority on reconnecting Hawaiians with their culture in order to instill that identity and pride. They also focus on the individual within the context of family and community and recognize that prevention activities are only useful if they address these systems. Finally, it is believed that much of these programs' success is due to their inclusion of Hawaiians in all stages of program operations. Thus, despite the very different missions of these programs, their adherence to common guiding principles of cultural competence has given them a shared vision and a formula for success.

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6

Samoans in California: A Perspective on Drug Use and Other Health Issues

Kawen T. Young and Kenneth Elifasa Galea'i, Ph.D.

Introduction

In this chapter, we consider substance abuse issues that affect Samoan families living in California. The information presented here was gleaned from a review of pertinent literature and substance abuse treatment and prevention programs as well as from observation and interviews with key informants. We interviewed program and school administrators, agency executives, community leaders, traditional Samoan elders, Samoan clergy, family heads, and law enforcement and corrections officials. We also talked with Samoan students about their perspectives and observations regarding substance abuse.

Our literature and program review revealed two things: First, substance abuse is a severe problem in this country. Second, there is little program-related information regarding Samoans. Our interviews with Samoans addressed the latter situation by providing a forum for the "indigenous voice." By sharing their ideas and experiences with you, we hope to offer authentic insight into substance abuse among Samoans in California.

A Pervasive Problem

A national study of American secondary school students found that drug use increased dramatically from 1991 to 1995 (University of Michigan News and Information Services, 1995). The proportion of eighth graders taking any illicit drug in the previous 12 months rose from 11 percent in 1992 to 21 percent 4 years later. The proportion of 10th graders using any illicit drugs in the previous 12 months rose from 20 percent in 1991 to 33 percent in 1995, and among 12th graders, from 27 percent in 1991 to 39 percent in 1995. Of particular interest was the continuing rise in daily marijuana use. Nearly 1 in 20 high school seniors and roughly 1 in 35 10th graders reported current daily use of marijuana in 1995. Investigators in this study found that while marijuana use had the sharpest increase, the use of other illicit drugs (LSD, other hallucinogens, amphetamines, stimulants, and inhalants) had also increased. The results of this survey are supported by other research showing a 36 percent increase in cocaine use by students in grades 9 through 12 since 1991 (National Parents' Resource Institute for Drug Education, 1995), and a 75 percent increase in hallucinogen use since 1989.

There are two possible explanations for these increases: First, young people today may be less informed about the adverse consequences of drug use than their parents were. Teens from a decade ago may have known more about drugs because they were exposed to more people who were users. There was also more information about drugs in the news and in public service announcements. The second possible reason for the increase is media messages, particularly in music and on television, that encourage drug use.

It appears that corrective efforts to reverse these trends are having little impact on our youths (Pennell & Curtis, 1994). As we look for new solutions, we must be sensitive to the characteristics of individuals that may predispose them to—or protect them from—substance abuse. Among Pacific Islanders, those protective characteristics may well emanate from culture.

Kim, McLeod, and Shantzis (1992) offer a cultural perspective on substance abuse prevention among Asian Americans and Pacific Islanders. They describe three conceptual models for sub-

stance abuse intervention programs that have cultural sensitivity as their defining feature: the cultural content model, the cultural conflict model, and the cultural interaction model. The cultural content model attributes variations in substance abuse among different cultural groups to varying cultural values and norms that govern behaviors. The cultural conflict model assumes that substance abuse is influenced by conflicts individuals experience as they attempt to adjust to mainstream cultures. The cultural interaction model sees substance use as an effect of adaptation to Western mainstream culture.

Samoans: An Overview

During the past 40 years the United States has become home for many Samoans who have migrated from their indigenous homeland, the Samoan Islands. These islands are located in the Pacific, approximately 3,700 miles southwest of Hawai'i. They are divided into two nations, Western Samoa, an independent country, and American Samoa, an unincorporated territory of the United States. The Samoan Islands are known as the "cradle of Polynesia" and represent a rich cultural heritage.

Western Samoa consists of two principal islands, Upolu and Savai'i; two small but politically important islands, Manono and Apolima; and several smaller uninhabited islands—Fanuatapu, Namua, Nu'utele, Nu'ulua, and Nu'usafe'e. The population of Western Samoa is 161,298 (United Nations Development Project, 1991), and its capital is Apia, which is located on Upolu. Western Samoans must go through the immigration process and obtain an immigrant visa before they can enter the United States.

American Samoa consists of seven islands—Tutuila, Aunu'u, the three Manu'a Islands (Ofu, Olosega, and Ta'u), Sand, and Rose. The capital of American Samoa is Pago Pago, located on Tutuila. American Samoa has a population of 54,000. It is the only American soil located below the equator. American Samoans are classified as United States nationals and may travel freely in the country without obtaining a visa.

In the early 20th century, American Samoa was used as a coaling station for naval ships and became a strategically important U.S. naval base in the 1930s as Japan began its rise to power. By

the end of World War II, the base employed more than 25 percent of the islands' population. When the base closed, many Samoan military personnel were transferred to other naval bases, and Samoans began a long and extensive migration to the United States by way of Hawai'i. Like other immigrants, Samoans sought a better education for their children and improved economic opportunity and faced many obstacles, such as segregation, language barriers, and a lower economic standing. Samoans had to adapt to a completely new way of life and an unfamiliar socioeconomic environment.

As they approach the 21st century, Samoans continue to struggle to assimilate into American society. These struggles have placed them at risk for an array of problems, including the abuse of alcohol and drugs.

Population

According to the U.S. Department of Commerce (1991), there are more than 7 million Asians and Pacific Islanders in the United States. Some 63,000 of these are of Samoan ancestry (U.S. Department of Commerce, 1992). Government reports indicate that more than 31,000 Samoans reside in the State of California alone. However, an independent census sanctioned by the Office of Samoan Affairs and conducted in the mid-1980s by Samoan community leaders, traditional leaders (*matais*), and community organizations found that more than 90,000 Samoans were living in California (Pat Luce, personal communication, September 1996).

If this census is correct, Samoans are the second largest Pacific Islander population (after Hawaiians) in this country. According to this study, their distribution in California is as follows: more than 60,000 live in greater Los Angeles, Ventura, San Bernardino, Riverside, and Orange counties; more than 10,000 live in San Diego County; and some 20,000 live in Oakland, Santa Clara, San Mateo, San Francisco, and Sacramento counties. Another 30,000 live in Hawai'i. More Samoans live in the United States than in American Samoa itself. Their largest numbers are in San Diego, Salt Lake City, and Seattle.

Age

Samoans who live in the United States are the youngest of all U.S. Pacific Islander groups (table 6.1). Approximately 32 percent are under the age of 18 (table 6.2).

Table 6.1. Median age of Pacific Islanders, 1980 and 1990

	United States	Pacific Islander	Hawaiian	Samoan	Guamanian	Other Micronesian
1990	33.0	25.1	26.2	21.3	25.9	22.4
1980	30.0	23.1	24.3	19.2	23.0	22.2

Source: U.S. Department of Commerce, Bureau of the Census, 1992

Table 6.2. Age breakdown of Pacific Islander groups

	United States (in thousands)	Pacific Islander	Hawaiian	Samoan	Guamanian	Other Micronesian
Total	248,710	350,592	205,501	57,679	47,754	7,216
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Under 5 years	7.2	10.8	10.0	14.1	9.1	11.8
5–9 years	7.4	9.9	9.2	12.4	9.7	7.4
10–14 years	8.1	10.5	10.0	13.3	10.2	7.4
15–19 years	9.3	11.7	11.6	12.0	12.7	13.1
20–24 years	9.4	11.4	10.8	10.5	13.9	23.9
25–34 years	16.4	17.4	16.4	16.9	21.7	24.7
35–44 years	11.3	11.3	11.7	10.4	10.5	6.7
45–54 years	10.0	7.5	8.5	5.3	6.2	3.3
55–64 years	9.6	5.1	6.1	3.1	3.5	1.1
65+ years	11.3	4.4	5.6	2.1	2.4	0.5

Source: U.S. Department of Commerce, Bureau of the Census, 1992

Education

Education in the United States is the pathway to financial power, prestige, and influence. Unfortunately, the record of academic achievement among Samoans in this country is poor. Less than 10 percent of Samoan men receive college degrees, compared with 20 percent of the general U.S. population. Only 4.8 percent of Samoan women attend college (McCuddin, Miike, Pangelianan, & Franco, 1994). Some 65.7 percent of Samoan men graduate from high school,

compared with the national average of 67.3 percent; but dropout rates among Samoans appear to be significantly higher. For example, Oceanside High School in North San Diego County, California, a school noted for its large Samoan student population, had a 40 percent dropout rate in 1995—the highest in the State. Dropping out of high school is sometimes related to a cultural conflict of values (Mokuau & Chang, 1991) that children experience at home and at school. The Samoan parents we spoke with were unaware of such conflicts. Most assume that their children are closely monitored by school staff, and they are often unaware of their children's behavior at school. When parents do not hear from their child's teacher, they assume all is well. In addition, reports that are sent home may not be read because the parents may not understand English. Children are aware of their parents' unfamiliarity with the language and may use this to their advantage.

Individual achievement is often at conflict with the tenets of Samoan culture, which encourages the individual to make decisions based on the good of the whole. The American public school system must develop interventions that are sensitive to these values, but that encourage the importance of individual achievement. One such program might establish a mentor relationship between a student and an adult who would guide the student through his or her daily educational endeavors. Samoan students will strive hard to alter their behavior or improve their grades to please an adult who reaches out and encourages excellence.

Economic Status

The per capita income of Samoans living in the United States is $7,690, half of the national per capita income and the lowest of any other ethnic group (McCuddin et al., 1994). Approximately 10 percent of Samoans are unemployed, compared with the national average of 6.3 percent. Samoans are less likely to be in high-paying professional or administrative occupations because they lack the necessary education. Newly immigrated Samoans face language barriers and as a result are likely to accept lower paying service and industrial jobs. Twenty-five percent of Samoan families have incomes below the national poverty level, compared with 10 percent of the overall population (Bousseau & To'omalatai,

1993a). Samoan youth are often at high risk for alcohol and drug problems, gang involvement, and crime because of their disadvantaged socioeconomic status.

Health Care Issues

The leading causes of death in the United States are heart disease, lung disease, and stroke (U.S. Department of Health and Human Services, 1990). The leading causes of death for Asian Americans and Pacific Islanders in California are heart disease (28 percent), cancer (24 percent), and stroke (9 percent).

Samoans have high rates of non-insulin-dependent diabetes mellitus (NIDDM), which is associated with obesity and secondary-level diabetes (hypertension, renal failure, cardiovascular disease, glaucoma, and amputation). Obesity and NIDDM appear to be major public health problems among Samoans. Culturally appropriate and competent community outreach are urgently needed to educate Samoans about the importance of early detection, weight control, nutrition, exercise, and compliance with treatment protocols. Many Samoans do not have health insurance, and as a result their use of preventive health services is minimal (McCuddin et al., 1994).

Substance Abuse and Related Crime

Drug abuse and drug-related crime among Samoans in California continue to escalate. Like poverty, drug use and drug-related crime are overwhelming problems. In the 1990s, the use of alcohol and even greater use of illicit drugs such as marijuana, crystal methamphetamine, PCP, cocaine, and heroin are affecting many Samoans and contributing to loss of employment, domestic abuse, and deterioration of the Samoan family value system. Unfortunately, the high rate of unemployment has prompted some Samoans to sell drugs in order to support themselves and their families.

To ascertain the impact of substance abuse on Samoans in California, we interviewed 40 people across the State. We found that drug abuse and related crime occurred irrespective of age. We also found that cultural values and traditions were central to

each story we heard. For purposes of illustration, we share a few of these stories here as they were told to us, in order to preserve their ethnic flavor and the perspective of the speaker.

Case 1: Bob. He is dead, murdered in the street. He was 19, one of nine children, a high school dropout. Both his parents were first-generation immigrants with no education. His father worked in agriculture, his mother was on welfare. He had multiple arrests for crimes including robbery, burglary, vandalism, and possession and sale of drugs.

The year was 1979. I lived in Hawai'i, in the very traditional community of La'ie, which was bound by strong religious and cultural influences. Bob was my cousin. My mom's house had been burglarized—money she kept in the family bible was taken, as well as a stereo and kitchen appliances. Only someone who had come to our house and participated in family prayers would have known about the money. Bob had been over the night after he got out of the juvenile detention center. We had family prayer that evening.

I looked for Bob for nearly two weeks after that visit. Then one night, I got a call from my friend. He told me to get over to his house right away, "Your family is all over the temple parking lot."

As I arrived, the irony hit me. There in the street lay Bob's body covered with a sheet. His sisters were crying hysterically. Family and friends surrounded Bob. The police could not approach his body because the family would not budge. The closer the police came, the tighter our circle and the louder the crying. He had been stabbed through the heart by a boy who was afraid Bob was going to kill him and hurt his father.

Bob had been dealing marijuana. The dealers gave Bob a supply to sell, then came to him for payment. He smoked as much as he sold and didn't have enough money when they came to collect. So he stole from family, threatened his friends, and terrorized those he did not know. Bob told the boy who eventually killed him that if he did not pay up, Bob would beat him up, then go to the boy's father and beat him up if he did not pay. How could this happen in idyllic La'ie? One boy is murdered and another boy is a murderer. Drugs and I did this in 1979. I turned Bob

on to "Acapulco Gold," marijuana that I had brought from California six months earlier.

Case 2: Faleniu. He is 41 years old, a convicted felon. He was tried for murder, racketeering, and drug trafficking. He was dishonorably discharged from the military. He dropped out of high school and spent 5 years in various California prisons for drug-related convictions. He is the youngest of 13 children, all of whom were raised by their mother, a single parent.

He came to America as a young boy. He knew very little English, but he had such bright eyes, and struggled to pay attention in school. He was put in special education classes because he was slow. Although he dropped out of high school, he got his GED while in the army. When he left the army, he had no skills, no education, and no job, so he went into something he knew about—the drug trade. He could be ruthlessly violent; he had seen much violence in the village in Faleniu, American Samoa, and in the projects of Sunnydale, Hunters Point, and Candlestick Cove in San Francisco. His ruthlessness was highly rewarded in the drug business. He made thousands of dollars as a drug dealer, he says, because people would just give him the money. He did not negotiate; he just looked at them and showed them the gun. He was eventually convicted of felony transportation. He was sent from Folsom prison to San Quentin and then to Pelican Bay because he was considered a security risk.

He wonders if his inability to speak English made his teachers think he was slow. He did not adjust well when he came to this country. Issues of adjustment were common among the people in his housing projects—everyone was from somewhere else, and everyone was attempting to adjust to America. He was living in San Francisco, a city with nearly 3 million people and a school system that had little time for a child with special needs. So he went elsewhere to have his needs addressed. He has spent much of his adult life in a cell.

He has been married for 20 years and has four children. His eldest daughter is going to college. His oldest son is going to play high school football and has great promise as a linebacker or fullback. By all outward appearances, he has finally adjusted to American life. He does not use drugs. He does not deal in drugs.

His drug contacts have disappeared from his life. He moved his family to a remote place where no one knows of his past. With no education, he concentrates on working hard. He drives a truck for the city and county under an assumed name. He volunteers his time to work at church, at playgrounds, and with sports teams, always keeping an eye out for the kid with "bright eyes."

Case 3: Tavita. He drinks heavily and uses cocaine. He sells drugs. He is 25 years old and recently married. He is a high school dropout and works full time for the airlines. He drives a new car, carries a beeper and a cellular phone. He wears expensive jewelry. He lives in the suburbs with his parents and pays the notes on their three cars. Mom thinks he makes the payments from his checks from the airlines. When he goes out late at night with his work clothes, she thinks he is going to work double shifts for overtime pay. He is irritable most days. He sleeps little. His wife left him to live with her parents. A promising football and basketball player in high school, he now uses his abilities to sell cocaine. He is convinced that the drug money will serve him well by helping him pay off family bills and perhaps finance a college education in the future. Until then, he carries a gun in his car.

Case 4: Mom and Dad. A pleasant and very humble Samoan senior citizen couple resides in the city of Compton. One would never believe that this particular couple could create such a stir within the community. Many of the couple's children, grandchildren, nephews, nieces, and friends were involved. Neighbors were constantly complaining about the noise coming from the couple's home and the constant traffic in and out. It was obvious that drugs were being sold from their home.

Law enforcement officials warned the couple. When things didn't change, the police department put the family under surveillance. Members of the Neighborhood Block Watch filed a petition against the family for breaking the city's "public nuisance" ordinance, presented it to the mayor and city council, and requested that the family be evicted for the violation. The council forwarded the matter to the city attorney's office for legal action. The city attorney processed the eviction petition, and the marshall's office served the notice of eviction to the family. The family denied all allegations but took no legal recourse. Several

days later, sheriff's deputies were present to ensure that the family vacated the premises.

Case 5. Pati. He was charged with distribution of controlled substances and possession of a deadly weapon. A drug buy went bad; he was carrying a gun and people were shot. At the time of his arrest, large amounts of money and drugs were confiscated. Because of his limited language skills, he could not communicate well with police. His brother, who gave him the contraband, tells him that everything is going to be fine. He is sent to jail and doesn't know anyone who speaks his language in the correctional system.

He was nine years old and living in a small village in American Samoa when his parents decided to move the family of eight to California. Pati was excited about their move, thinking they would have a luxurious life full of new toys, clothes, and candies. His parents hoped the move would mean a better education for their children and better employment opportunities and medical care for the whole family. The father and his four sons came to California first. He found work at a naval shipyard but was laid off seven months later because of cutbacks. Still, he had saved enough money to send for the mother and two sisters.

The family lived in overcrowded subsidized housing. A few months after their reunion, the parents became frustrated with each other from the stress of being unable to find permanent work. The father went on drinking binges that lasted several days. Mother became a bingo fanatic in an attempt to release her stress and frustration. How did this affect the children's lives? They turned to dealing drugs in order to survive. As a result, Pati's new home in America is a correctional facility.

In Need but Underserved

These case studies might give the impression that Samoans who suffer from substance abuse have no hope of recovery. On the contrary, treatment services are available, but Samoans are not using them. In Los Angeles County, for example, the Department of Health Services, Alcohol and Drug Program Administration reported that only 36 Samoans were admitted to alcohol or drug treatment programs in 1995–96. With an estimated 60,000 Samo-

ans living in the area, it is clear that this population is not accessing services.

The department reported that two-thirds of those admitted to programs were male. Table 6.3 lists the substances that the Samoan clients reported abusing. These data support general patterns of substance abuse among Samoans, specifically that it is more common among males and that the substance of choice is alcohol (Whitney & Hanipale, 1991).

Table 6.3. Percentage of Samoans admitted to drug and alcohol programs in Los Angeles County (N=36), by type of substance (7/1/95–5/31/96)

Type of Drug	%
Heroin	18.2
Alcohol	40.9
Methamphetamine	27.3
Marijuana/Hash	13.6

Source: Los Angeles County Department of Health Services, Alcohol and Drug Program Administration

Samoans often deny their use of alcohol and illicit drugs. It is a norm in their culture to never openly admit a substance abuse problem to an outsider because this admission would bring about shame to the *aiga* (family). When questioned by an outsider about substance use, Samoans will avoid responding or will deny using alcohol or drugs. In Samoan culture, denial or vagueness is an accepted form of etiquette. Samoan culture is also more tolerant of persons who are intoxicated than is American culture. It is not unusual for an intoxicated Samoan to give a *fa'aumu* (shout of happiness). Another Samoan who witnesses the behavior would likely respond, "Ah, he's just drunk and quite happy." An American bystander might find the behavior unacceptable.

Samoan Family Values in an Ever-Changing Society

Our discussions with Samoans living in this country revealed a culture dilemma that many struggle with: Whether they were born in the islands or in the continental United States, many Samo-

ans—particularly Samoan youth—are torn between Western cultural values and norms and *Fa'a Samoa* (the Samoan way of life).

Consider the case of Fatu. Born in American Samoa and reared in the mainland, Fatu lives with his aunt, uncle, and cousins. He works full time and attends college. His pay is usually divided as follows: one-third is deposited in his savings account for college; one-third is given to Aunt Tasi for room and board; and one-third is mailed to his parents in American Samoa. Fatu was in his senior year in college, with graduation approaching. His family and relatives were looking forward to attending his graduation when they received tragic news from American Samoa. Fatu's father had passed away. Fatu had to postpone finishing college and return to American Samoa.

Fatu's savings now had to go toward the *aiga fa'alavelave* (family emergency). He faced the disappointment of perhaps not completing college and obtaining his degree. Fatu's father was a *matai* (chief), and as the eldest son, Fatu was obliged to help his mother. On behalf of his mother, younger brothers, and younger sisters he would have to sit among the aiga and plan for the fa'alavelave. He could not turn his back on tradition and neglect his obligation to his family.

Fa`a Samoa and the Aiga

Samoan social customs and rituals are based on the values of respect (*ava*); reverence (*fa'aaloala*); and love, compassion, or concern (*alofa*). Fa'a Samoa embraces these values and emphasizes the strengths of Samoan culture. Fa'a Samoa is the true source of Samoan identity and inspiration. In Samoan culture, the aiga has profound effects on the individual's values and belief systems. Samoan culture is based on mutual sharing and mutual respect. The value of sharing pervades Fa'a Samoa at the individual, family, and village levels. Anyone may request food, clothing, shelter, or other assistance from a relative. To refuse such a request is considered a violation of two other Samoan values—kindness and compassion. Private possessions are virtually nonexistent in Samoan culture. A person may take something from a relative without even asking, and homes are open to distant relatives and

friends (Bousseau & To'omalatai, 1993a). Likewise, a Samoan student's academic achievements are aimed at meeting the expectations of the aiga, particularly the parents, rather than attaining personal success and material wealth. Once children complete their education, they are expected to help support the aiga, and thus increase the parents' prestige within the Samoan community.

These values are the foundation of the Samoan social structure, which is built around the institutions of family, village, church, school, and government. Each individual and group is assigned a role and a rank. Roles and responsibilities are preordained and are reinforced through traditional rituals and by authority of the *matai*.

The Matai System

The *matai* is the leader of the aiga (nuclear and extended family) and typically is elected by all adult family members. The *matai* makes all decisions regarding the use of assets and land, protects and guides his family, and preserves peace in the village. The highest ranking *matais* in the village are the *ali'i* (high chief) and the *tulafale* (orator chief). *Matais* are accorded high social status and representation on the *fono* (village council). *Matais* are responsible for enforcing laws and punishment for infractions that occur in their village. Social protocol is taken extremely seriously, and crimes such as manslaughter, adultery, violence, and insubordination are punishable by all sorts of unpleasant means (Swaney, 1990).

Most serious crimes require the offender to endure humiliating rituals for *ifoga* (begging of forgiveness). The *matai* of the offender's family is covered in fine mats and sits in front of the victim's *fale* (house) until the victim's family feels that the offense has been atoned for by the offender's humility. The entire family shares the shame of the wrongdoer's offense. Usually, the family gives the victim's family gifts of money, food, and fine woven mats (*i'e togas*). The victim's family can accept these offerings of apology or refuse them. If the family refuses the offerings, the offender can be severely beaten. If the family accepts the gifts, the apology is accepted.

Samoans and Americans differ in their methods of conflict resolution. In Anglo-American culture, people problem solve to resolve conflict, and the process is often competitive; in Samoan culture, conflict is usually resolved by consensus and under the leadership of the *matai*. Samoans believe in fate; thus, barriers to solving a problem may be viewed as signs that the situation should be accepted. Critical thinking is discouraged for fear that it may evoke dangerous spiritual forces. Many Samoan students lack Western problem-solving skills and may be disadvantaged in the school system. And if these skills are acquired, they may not be compatible with cultural norms in the home, and youths who use such skills may be disciplined.

Tradition as a Force Against Drug Use

The Samoan tradition of orally passing history from generation to generation has united and strengthened Samoan families by reinforcing their cultural identity. Orature allows for debate and negotiation. The written word fixes the truth. Genealogies, land titles, customary practices, secret rituals (e.g., for natural healing, disputes, and religious beliefs) are threatened by modification and subject to change when they are written.

Substance abuse prevention literature emphasizes the importance of early intervention and of recruiting parents to work with their children. The Samoan values of respect, reverence, and love are a natural fit with such emphases. Parents are their children's first teachers. They teach children that respect, reverence, and love are intertwined. To respect others through service and to revere cultural traditions is to love. This respect for others reflects a love of self. This love of self prompts people to take care of their body and spirit, to make right choices, and to avoid substance abuse.

We propose that intervention programs and services acknowledge traditional ways of addressing behavior and healing. Western human service systems must acknowledge that culturally diverse people need culturally sensitive services. Our cultural leaders and communities must revisit traditional values, mores, and tenets and be willing to model the strength of Fa'a Samoa to the world. In so doing, we will instill responsibility for caring for our own, for ingraining in them the importance of service and

love, and for nurturing in them a commitment to live with respect for others and for self.

We urge human service professionals to consider new ways of helping the culturally diverse and to incorporate traditional values and customs into programs. We ask them to form partnerships with traditional Samoan leaders in order to develop programs that are culturally appropriate. These leaders include the following:

- Ministers and clergy. These spiritual leaders are key to Samoan communities and are equivalent to the *matais* from traditional Samoan villages.
- Family leaders (*matais*). These leaders are central to the daily needs of each family and to preserving traditions and customs.
- Community organization leaders. These leaders provide services that address the specific needs of the Samoan community and advocate for the preservation of their culture.

These leaders must be involved in developing strategies to address substance abuse. They understand the fundamental principles of Samoan culture and know the most appropriate venues for substance abuse treatment and prevention.

These leaders must work collaboratively to establish community strategies and to address the unique concerns and needs of the Samoan people. For example, actions that might be taken for youth at risk for substance abuse might include close communication between teachers and parents, and involvement of Samoan clergy and traditional leaders in school functions and extracurricular activities. In the absence of the *nu'u* (village communal system), these Samoan leaders play a crucial role in helping Samoans find fellowship and a sense of community. They can also help bridge the gap between the Samoan community and the dominant culture (Bousseau and To'omalatai, 1993b). Samoan community-based organizations are nonprofit organizations dedicated to preserving the culture, advocating for access and opportunity, and working to develop programs that address the unique needs of Samoans and other Pacific Islanders.

Conclusion

Samoans living in the United States face a multitude of problems, including poverty, high rates of unemployment, and low educational achievement, that put them at high risk for substance abuse. Unfortunately, no one knows how pervasive the problem of substance abuse is because Federal statistics on Pacific Islanders in general and on Samoans in particular are limited. Federal data collection efforts aggregate statistics for Asians and Pacific Islanders under one category that represents as many as 30 different ethnic groups—including Samoans—each with a distinct cultural identity.

Before we can develop culturally responsive prevention and treatment programs, we must have data that are specific to each ethnic group. In addition, Samoan leaders, including the clergy, *matais*, and community organization heads, must be involved in the development of strategies and initiatives for prevention and treatment. Their participation will result in interventions that are sensitive to cultural norms and practices. We believe that using Samoan cultural strengths to address substance abuse problems will facilitate the creation of the new Samoan village in the United States, in which these people will truly feel at home. Bousseau and To'omalatai (1993b) capture this sentiment, as follows:

> *While members of the community get involved with kids, providing positive alternatives to American street life, they know that the best solutions are found within the family. Regardless of which path is taken to a successful future, all lead back to the aiga, the family. Family is the heart of being Samoan. Without it, one can get lost between two worlds.*
>
> *It's been only 40 years since the first wave of immigrants left the islands. It's a short time compared to the more than 2,000 years that the Samoan culture has survived. The adaptation to this new lifestyle is not an easy process. But it has proven one thing: The best and only way for the success of the Samoan people is the preservation of their culture and traditions. It will be the source of strength for future generations.*

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7

Chamorros: Recognizing a People and Their Issues With Substance Abuse

Noreen Mokuau, D.S.W., and
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. . . [D]espite the sheer tenacity of a group of people who continue to defiantly proclaim themselves to be Chamorro, many refuse to acknowledge the existence of the Chamorro people. . . . Hope Alvarez Christobal, 1990, p. 11.

Introduction

Chamorros, the third largest Pacific Islander population in the United States, remain relatively unknown in the American landscape of cultural diversity. Their anonymity may be the result of their relatively small population in this country, their dispersement throughout the United States, and their political status as nationals of an American territory. Approximately 49,000 Chamorros reside in the United States, primarily in California (U.S. Department of Commerce, 1993), and 58,000 live in their own island homeland of Guam (Rodriguez, 1996). As American citizens, Chamorros owe allegiance to the United States but do not enjoy the full privileges of citizenship. For example, Chamorros residing in U.S.-associated jurisdictions cannot vote. In the United States, Chamorros are often misidentified as other ethnic/racial groups such as Filipinos, Hawaiians, Mexicans, or

Puerto Ricans. Many people in the United States would have difficulty locating the island of Guam on a world map and are unfamiliar with the distinctive history and cultural traditions of the Chamorro people.

Because Chamorros are an obscure population, little is known about the scope and severity of substance abuse among them, and it is difficult to develop and deliver culturally competent services. In this chapter, we attempt to give Chamorros greater visibility by addressing substance abuse within the context of culture. Specifically, we discuss (1) the background of the Chamorro people, including historical origins and cosmography; (2) the scope and severity of substance abuse among them; and (3) elements of culturally competent services for Chamorros.

The Chamorro People

Historical Background

Chamorros are the indigenous people of the Mariana Islands of Guam, Saipan, Rota, and Tinian. They have inhabited these islands since 2,000 B.C.E. (Rogers, 1995). Chamorros were unknown to the rest of the world until Ferdinand Magellan, a Spanish navigator, landed on the islands in 1521. Since the arrival of Westerners, Chamorro traditions and lifestyle have undergone continuous change.

The arrival of the Spanish on the Mariana Islands initiated a series of Chamorro-Spanish wars. By 1681, the Chamorro population on Guam had decreased from an estimated 40,000 to 5,000 as a result of the wars and the spread of Western diseases (Sanchez, 1987).

Chamorros resisted moves by Spanish Christian missionaries to ban traditional practices such as ancestral worship, dancing, fornication, and other acts that were branded "paganistic." But churches were built and Chamorros were taught Christian doctrine.

Guam, Saipan, Rota, and Tinian remained colonies of Spain until the end of the Spanish-American War in 1898, at which time Guam became a United States possession while Saipan, Rota, and

Tinian were purchased by Germany. Germany maintained possession of these islands until the end of World War I. Then Japan assumed control and governed them until World War II, at which time the United States gained Saipan, Rota, and Tinian under U.S. trusteeship. In 1975, the Commonwealth of the Northern Mariana Islands (CNMI) was established, allowing for greater autonomy and self-rule for Chamorros living in Saipan, Rota, and Tinian.

Control of Guam has changed hands several times. The United States maintained military control over the island from 1898 until its invasion by Japan in 1941. During World War II, Guam became a war zone under Japanese command. Chamorros were subjected to numerous inhumane acts at the hands of the Japanese, such as death by firing squad and beheading. Such offenses persisted until U.S. forces reclaimed the island in 1944.

Following World War II, the Chamorro economy on Guam shifted from agrarian to industrial and urban. With the introduction of wage labor, most Chamorros began working 8-hour days, 5 days a week. Along with this change came acculturation to Western values.

In 1960, Guam became an unincorporated territory of the United States. This status grants the people of Guam U.S. citizenship and one nonvoting seat in Congress. Since this change in status, large numbers of Chamorros have moved to the United States, although they travel back to Guam frequently. For some time, the people of Guam have been exploring the possibility of commonwealth status in hopes of moving toward greater autonomy and self-determination. The initiative is supported by other Pacific Islander constituents, as reflected in the actions of such groups as the Hawaiian congressional delegation:

Over a decade ago the people of Guam voted in a referendum to seek commonwealth status. However, a final resolution to their request has not been accomplished. We have a responsibility to consider this proposal. . . . Congresswoman Patsy Mink cited in Pichaske, 1997, p. A-5.

Chamorro Worldview and Values

Given Chamorros' geographic dispersion and the U.S. history of ethnic assimilation, one would expect two things about Chamorros' worldview and values: (1) that Chamorros residing

on the different Mariana Islands would have different views and values, and (2) that acculturation would have diminished the importance of indigenous views and values. However, despite the physical separation of the islands of the Marianas and the geographic distance of the United States, Chamorros have managed to maintain a collective core of cultural values. These core values include *familia* (family), *inafa'maolek* (interdependence), spirituality, and ethnic pride.

For most Chamorros, the familia is the center of life. Chamorro families include relatives of blood and marriage, as well as children's godparents. The family's strong role dates back to ancient Chamorro culture, in which "obedience to family authority, the maintenance of family harmony, and duty to fulfill family obligations were more important than anything else" (Cunningham, 1992, p. 93). The importance of family lines in traditional Chamorro culture also had important ties to land ownership.

Within the traditional family structure, esteem and respect are accorded to the *man'amko* (elders), who are consulted for advice and guidance on important family decision-making. Respect for elders is shown in the custom of *man'nginge'*—smelling the elder's hand as a form of greeting.

Inafa'maolek, or interdependence, refers to Chamorros' reliance on each other for help in meeting life's challenges. This value may have derived from the Chamorros' agrarian lifestyle prior to World War II, in which communal support was required for vegetable and fishing harvests, and taking care of children and elders. Inherent in the value of inafa'maolek is a belief in reciprocity, or *chenchule'*, which refers to contributions of material goods (e.g., money, food, gifts) or help (e.g., preparing food for the host of a party) to family and friends.

Spirituality is also an important aspect of Chamorro culture. In traditional times, Chamorros believed in *makahnas* (spiritual leaders) who had the ability to communicate with the *ante* (spirits of ancestors), identify offended ancestral spirits, prescribe a means for making restitution to offended spirits, produce rain, bring a good harvest, and induce health and healing (Cunningham, 1992). In contemporary times, Chamorros continue

to revere the ante, who are more commonly referred to as *taotaomo'nas*. For example, many Chamorros have a great respect for the island's jungles. Before taking anything from the jungle, it is customary for Chamorros to respectfully address the taotaomo'nas in the vicinity as *tan guelo yan tan guela* (grandfather and grandmother) and seek permission to remove jungle resources. They believe that if they fail to ask permission, they will suffer some ailment, such as bruises or fevers.

Many Chamorros are also very religious. Nearly 90 percent of Guam's residents are affiliated with the Roman Catholic Church. Catholic life events such as *baptismo* (baptism), *masagua* (marriage), and *matai* (death) are observed by the extended family network and friends. Religious celebrations such as *fiestas* (celebrations of the patron saints of each village) and *nobenas* (novenas to various saints) are also routinely observed. It is not uncommon for a family to host several of these celebrations within a year. The intrinsic value of religion to Chamorro people is best reflected in their expression for "thank you," which translated is "may God show you mercy."

Ethnic identity and ethnic pride are also important cultural values. Since their first encounter with foreign powers, Chamorros have fought arduously to maintain the *kustumbren Chamorro* (Chamorro way of life). During their history of colonization and oppression, the Chamorro language has survived, despite attempts to ban it at different times.

Sociodemographic Characteristics

The 58,000 Chamorros residing in Guam constitute 43 percent of the total Marianas population of 133,152 (Rodriguez, 1996; U.S. Department of Commerce, 1991). Other groups living in Guam are Filipinos (23 percent), Whites (14 percent), Asians (7 percent), Other (6 percent), Micronesians (5 percent), and Blacks (2 percent). The median age of Chamorros in Guam is 22.5 years, compared with 25 years for the general island population (Rodriguez, 1996).

More than 49,000 Chamorros have migrated to the United States. Their sociodemographic characteristics are slightly different from those of their counterparts living in the island home-

land. Chamorros are dispersed throughout the United States, with a heavy concentration in the States of California and Hawai'i. They are a relatively young population, with a median age of 25 years, compared with 33 years for the total U.S. population (U.S. Department of Commerce, 1993). Their average family size is 3.9 persons, larger than the family size of 3.2 persons for the total U.S. population. More than 30 percent of Chamorros in the United States speak their native language at home. Approximately one-fourth of Chamorros cannot speak English very well, and 7 percent are identified as linguistically isolated (U.S. Department of Commerce, 1993).

College completion rates for Chamorros (10 percent) are lower than for the total U.S. population (20 percent). Chamorros have more people in the workforce (72 percent) than the total U.S. population (65 percent). However, Chamorros' per capita income is lower ($11,000) and their poverty rate is higher (15 percent) than the total U.S. population ($14,000 and 13 percent) (U.S. Department of Commerce, 1993).

Scope and Severity of Substance Abuse

The limited sociodemographic information on Chamorros underscores their relative obscurity within the U.S. population and the difficulty of collecting comprehensive and accurate information on substance abuse among these people. Like other Pacific Islander populations, Chamorros are not specifically identified in many national data systems. Rather, they are aggregated with other Pacific peoples, which camouflages their unique circumstances. Despite the lack of national information, there are reports that substance abuse and mental health problems affect Chamorros who have migrated to the United States (Shimizu, 1982; Untalan, 1991). Migration, which disperses family members and requires adjustment to mainstream American norms, fosters loss of family support, breakdown of Chamorro cultural values, and the development of an array of social problems including substance abuse (Untalan, 1991).

Information about Chamorros in Guam is more readily available. Evidence of substance abuse in Guam emerged in the 1970s with reports of heroin addiction and has continued into the 1990s with accounts of alcohol, ice,[1] and marijuana dependence. In the 1970s, Guam experienced a dramatic rise in heroin addiction and crime. Carter (1978) reported that there was an estimated 200 percent increase in heroin addiction in Guam from 1975 to 1977, with approximately 600 to 800 persons being identified as heroin addicts. The majority of these were males (77 percent) between the ages of 18 and 25 years (73 percent). He also noted the following increases in crime (Carter, 1978, p. 17):

- An estimated 86 percent increase in property crime from 1970 to 1976.
- An estimated 404 percent increase in robberies from 1970 to 1975.
- An increase in gangland-style executions.

The increase in drug use and related crime has been attributed to Guam's strategic location as a major shipping point for drugs from Thailand, Hong Kong, Japan, and the Philippines to Hawai'i, San Francisco, and Southern California (Select Committee on Narcotics Abuse and Control, 1978). In the 1970s, an estimated $200 million worth of heroin passed through this Pacific island annually (Carter, 1978).

Concern about heroin addiction among Chamorros prompted the formation of a Federal drug strike force to combat drug trafficking and establish programs for substance abuse treatment. While heroin addiction has declined in recent years, major alcohol and drug problems persist. Villagomez (cited in de la Torre, 1994a) reported that alcohol is still the number one substance of addiction in the Mariana Islands, but that use of drugs such as ice is reaching epidemic levels. A five-year review by Guam's Department of Mental Health and Substance Abuse showed that more than half of all its clients have alcohol or drug problems (Guam Department of Mental Health and Substance Abuse, 1996a). For example, during the 10-month period from October 1995 through July 1996, the Department of Mental Health and Substance Abuse reported that 372 persons, or 45 percent of all

clients, received services for alcohol problems (Guam Department of Mental Health and Substance Abuse, 1996b). During that same period, 207 persons, or 25 percent of all clients, received services for problems related to amphetamines.

An inpatient drug and alcohol rehabilitation program that operates under the auspices of Guam's Department of Mental Health and Substance Abuse reported serving 397 clients since its inception in 1991 (Guam Department of Mental Health and Substance Abuse, 1996c). Of those clients, 50 percent (n = 200) used crystal methamphetamine, 28 percent (n = 112) used alcohol, and 22 percent (n = 85) used multiple substances. Chamorros constituted 68 percent (n = 271) of the total clientele, followed by Whites (15 percent, n = 60), Micronesians from the Federated States of Micronesia (11 percent, n = 45), "other" persons from the Commonwealth of the Northern Mariana Islands (4 percent, n = 15), and Filipinos (2 percent, n = 6). Eighty-four percent (n = 332) of the clients were male.

In addition to use of alcohol and ice, use of marijuana, nicotine, and inhalants has increased (Villagomez, cited in de la Torre, 1994a). One program reported that among its clients Chamorro students aged 8 to 17 ranked highest for use of marijuana and ice (Villagomez, cited in de la Torre, 1994b). It also found that marijuana users tended to remain in school, but students who smoked ice on a regular basis dropped out because of physiological and psychological effects.

One substance that is widely used in Guam is *pugua* (betel nut), which acts as a central nervous system stimulant. Betel nut is combined with lime and the oil of the betel pepper to form betel chew, which has euphoric effects. In Guam, people remove the husk from the mature betel nut, wrap the nut in a mint leaf, and begin chewing. Betel nut is available at most social gatherings in Guam. It is customary to have a basket of betel nuts with mint leaves and lime (from the boiling of coral) available at social events such as christenings, weddings, and funerals. According to one study, older Chamorro women are significantly more likely to use betel nut than are younger Chamorro women (Pinhey, Workman, & Borja, 1992).

Elements of Culturally Competent Prevention and Treatment Services

Substance abuse, particularly abuse of alcohol, ice, and marijuana, is increasing among Chamorros in Guam. While national and regional data on substance abuse among Chamorros in the United States are unavailable, it is suspected that issues related to migration, such as extended familial separation and cultural isolation, may increase the risk for substance abuse among Chamorros migrating to this country. This risk may be compounded by the low educational achievement and poor socioeconomic status that characterize Chamorros living in the United States. The evidence there is of substance abuse among this unique Pacific Islander population amplifies the importance of developing culturally competent services for substance abuse treatment and prevention.

One idea that is common among proponents of culturally competent programming is that services to minority populations can be enhanced by infusing programs with cultural worldviews and values. Guam's Department of Mental Health and Substance Abuse attempts to do this in the array of outpatient and inpatient programs it provides. All of the department's programs "emphasize the involvement of family members as an important component" in treatment and recovery (Guam Department of Mental Health and Substance Abuse, 1996a, p. 1). Outpatient programs, such as individual counseling, adolescent treatment and support groups, and codependency groups, emphasize services for adults, spouses, and adolescents. Two outpatient programs run in conjunction with correctional facilities for youth and adults work to help clients make a healthy transition back to their family and community. "New Beginnings," a residential treatment facility, is the only public inpatient program in Guam. This six-week program for drug addicts and alcoholics incorporates family members into group and independent counseling. The importance of the family as a motivating factor for recovery is evident in the comments of a New Beginnings graduate:

> *My family was so disgusted with me, and my grandfather was on his deathbed when I entered treatment. He told me that if I*

didn't finish the program, I shouldn't bother to come back to the family. I felt really bad that he died before he had a chance to see me sober and a member of society again. (Jacobs, 1992, p. 5)

The programs of Guam's Department of Mental Health and Substance Abuse are a good first step to addressing substance abuse among Chamorros in Guam. However, more is needed to address the problem fully not only among Chamorros living in Guam, but also among those living in the United States.

In developing such programs, prevention professionals should strive for the following:

- Program content that integrates cultural esteem and cultural values such as spirituality and the importance of family, with health promotion activities.
- Guidance from members of the Chamorro community regarding how to integrate cultural values and practices effectively.

The integration of cultural esteem and health promotion suggests that self-esteem and self-identity for many Pacific Islanders are reflected in a collective measure of worth that is associated with cultural mores and values (Ewalt & Mokuau, 1995). Drawing on cultural pride and collective identity may contribute to well-being by reinforcing a sense of belonging and cohesion. Walzer stated that "membership" in a communal place—or identity—is an absolute requisite for distributive justice (cited in Saleebey, 1992, p. 9). Saleebey (1992) added that without membership, people are vulnerable to losing many of their rights and privileges and, ultimately, their health. We must, he noted, acknowledge a person's story and strengths. By extension, the infusion of the strengths of a culture into treatment and prevention services will enhance the responsiveness of those services to a population that values cultural membership.

Inherent in the strengths of Chamorro culture is its native value system. We have noted that substance abuse prevention and treatment services must include the familia. The Chamorro value of inafa'maolek (interdependence) suggests that the behaviors of one family member affect the functioning of the collective

unit. Hence, family can be used as a source of support and education to prevent substance abuse and can actively participate in the rehabilitation of substance-dependent members. The involvement of family members puts interventions for the individual in the context of familial and cultural heritage.

Man'amko, or elders, can also play an important role in prevention and treatment. Elders are traditionally looked to for advice and guidance. Their position of honor within the extended family network may be a tool for engaging the individual to participate.

Christianity as it functions within Chamorro culture may also have a role to play. The church is a powerful influence in the lives of many Chamorro people; church-initiated health and education efforts may have broad appeal. The church might sponsor group or family discussion sessions on substance abuse, with a focus on the role of the family and community in preventing this problem. Also, the church might discourage the use of substances at church-related social functions (e.g., christenings, weddings, funerals).

Chamorros must be involved in the design and delivery of substance abuse prevention and treatment services to ensure a fit between those services and Chamorro cultural values. Input should be sought from members of the targeted population in order to identify potential culture-based barriers to utilizing services. Chamorro involvement in program development will tap their pride in their cultural heritage. The targeted Chamorro population will feel a sense of kinship with Chamorro program developers and may embrace available services as a form of *chenchule'*. As a group, Chamorros will take ownership of the services and their outcome. This ownership is a form of empowerment and a means of self-determination within the community.

The Chamorro language should be used, along with English, in programs for the Chamorros in the United States and in the Mariana Islands. The Chamorro language is the primary tongue in the Marianas, particularly among the *man'amko*. Services offered in English only will be inaccessible to many.

The Federal Government also has a role in improving prevention and treatment services for Chamorros. First, it must

change its custom of aggregating data collected from minority populations. It must identify individual ethnic groups and report data for each group.

Population data for Chamorros and other ethnic groups are more readily available in Guam; in the United States, such data are almost nonexistent. Chamorros, like other populations of relatively small size, tend to be excluded from national statistical counting.

> *Most government statistical agencies neglect to report health and demographic data on Asian and Pacific Islanders by different ethnicities. . . . Because of this, the health provider community is unable to monitor and evaluate the health status, disease patterns, and risk factors which affect Asian Pacific Islanders. By grouping Asian Pacific Islanders as other, or as one broad A/PI category, providers cannot identity and address the unique health care needs of ethnic sub-groups most at-risk.* (Forman, Lu, Leung, & Ponce, 1990, p. 1)

Disaggregated data for Pacific Islander populations would inform providers about the scope and severity of substance abuse among the Chamorro population, just as data currently collected for White, African-American, and Hispanic populations provide information on substance use prevalence and trends that is used to develop services for these groups (Johnston, O'Malley, & Bachman, 1995).

Guam's efforts to combat its growing drug abuse problems are being stymied by a lack of resources. The laws and policies that govern health care in Guam's communities must be reformulated to meet current needs. Guam's Department of Mental Health and Substance Abuse, for example, is not equipped to provide alcohol and drug detoxification or train appropriate personnel for this service (Guam Department of Mental Health and Substance Abuse, 1996a). Appropriate funding for such services must be made available.

Conclusion

Although Chamorros are the third largest group of Pacific Islanders in the United States, there is little information about their needs and a lack of community resources to address those needs. As we approach the year 2000, cultural competence must be woven into the fabric of programs that address the special concerns of Chamorro people—in particular, substance abuse. With a commitment to maintaining *kustombren Chamorro,* such programs can flourish.

Endnote

1. "Ice" is the street name for the crystalline form of methamphetamine hydrochloride.

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8

Drugs in Micronesia

Drugs in Micronesia: Introductory Comments*

Jay Dobbin

Marijuana in Chuuk*

Innocente I. Oneisom

Chilling the Pacific: Ice in the Commonwealth of the Northern Marianas*

Michael Mason

Editor's Note: *This chapter contains three previously published reports on the drug problem in Micronesia. The original work was edited by Jay Dobbin, who added extensive information in the footnotes and bibliography section of the various reports. The introductory comments have been slightly edited for this presentation.*

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Drugs in Micronesia: Introductory Comments

Jay Dobbin

Drugs are an import into Micronesia. The origins of some, like alcohol, sakau, and betel nut, are hidden somewhere in the distant past. Others are of recent origin, but there seems to be a pattern: The more recent the introduction to Micronesia, the greater the power and destructiveness. Against the lethal effects of recent methamphetamine ("ice") imports, sakau and betel nut appear relatively benign.

Sakau (kava) and betel nut

Unlike illegal substances such as marijuana, heroin, and cocaine, the drinking of sakau and chewing of betel nut are well situated within the controlled traditions and social structure of many parts of Micronesia, and are even spreading. Sakau drinking, for example, has largely disappeared on Kosrae but is now a significant cash export crop from Pohnpei to Guam and Saipan. Sakau drinking was originally a deeply ceremonial and social event on Pohnpei, and the reconciliation symbolism of publicly drinking sakau has been incorporated into Roman Catholic penance and reconciliation rituals on Pohnpei (McGrath, 1973). Now it has also been commercialized, not only through the exports of sakau to Guam, but also with sakau bars sprouting up alongside alcohol bars on Pohnpei (Lebot, Merlin, & Lindstrom, 1992, pp. 67–171). This commercialization is not without controversy. At a 1995 workshop we conducted in Kolonia, the commercialization of sakau was seen by Pohnpeians as a negative sign of changing values.

Island traffic in quality betel nut is lively and broader geographically than sakau exports, despite sporadic efforts by customs agents to prohibit import into and through Guam.[1] We queried various dentists about the bad side effects of betel nut chewing; the only significant health hazard registered was cracking a tooth when making the first bite into the nut. If there is one widely recognized health hazard, it is the association of betel nut with the deleterious effects of tobacco; betel nut is sometimes chewed with smoking or chewing tobacco. In fact, Mac Marshall (1993b) found no conclusive evidence that regular chewing of betel nut resulted in physical or mental health problems for most people (p. 262). He concluded that neither betel nut nor sakau (kava) pose health risks and that they do not have the "negative social and economic consequence for the Pacific Island societies where they are used." Other students of drugs in the Pacific are even more positive about the potential of sakau (kava) as a high-quality natural relaxant beverage, even with acknowledged therapeutic properties, that could compete internationally with other stimulants such as cola, coffee, and tea (Lebot, Merlin, & Lindstrom, 1992, p. 199). We discussed the harmful effects of sakau and betel nut with Pohnpeian and Palauan medical specialists; they are not as sanguine in their judgments. Sakau in great doses, they claim, causes scaly skin and internal parasites; it has a negative effect on performance at home and work. The local medical people also think the lime used in betel nut chewing may be carcinogenic (see Lee, 1990, on the harmful effects of sakau and betel nut). We think the jury is still out on the harmful effects of these drugs.

Introduction of pot, heroin, and 'ice'

Marijuana and perhaps heroin were introduced in the 1960s and 1970s (Marshall 1993b, p. 269). In 1984–85 a serious outbreak of heroin abuse in Palau saw over 50 people under professional treatment and several imprisoned off-island for trafficking in heroin brought in from the Philippines and Thailand (Marshall 1993a, p. 12). At that time most heroin may have been in transshipment through Palau. There are still reported users in Palau and elsewhere, but the heroin traffic, according to federal and local law

enforcement officials, is not the mega-problem it was in 1985. In fact, at least one of the convicted Palauans has returned from prison to help keep the new generation drug free. For Guam and the CNMI, the drug of the 1990s is no longer pot or heroin but "ice," a crystalline form of methamphetamine, the abuse of which is now proclaimed to be of epidemic proportions on Guam. Ice is not only the most recent but certainly the most potent of the drugs to arrive in Micronesia, although alcohol, because of its widespread use may have the greatest impact on society. Federal and local law enforcement officials now consider the heroin and cocaine traffic to be small in comparison with ice imports.

Revisiting Oneisom's 1985 survey of marijuana on Chuuk

In this issue of the *Micronesian Counselor*, we focus on the use and impact of [selected] drugs during the past 10 years: marijuana and ice.

Innocente Oneisom's study, *Marijuana in Chuuk*, was first distributed through the Micronesian Seminar in 1985. We are reprinting it 10 years later because Oneisom, now a Chuuk State legislator, thinks marijuana use remains much the same in 1995 as when he did his field research in the early 1980s. The number of users and dealers seems to be the same, according to Oneisom, and the price of a joint has not changed, about $2. It is still grown locally and he occasionally still sees families growing plants right outside their homes. In other words, it remains the family affair he described in 1985. At that time some marijuana was brought in from Yap, Palau, and Saipan; recently, there were Chuuk airport busts of pot from Pohnpei.

Oneisom's statistics for pot use on Chuuk are high compared to other locations in Micronesia; but most of the other studies surveyed select populations such as high school students; Oneisom's convenience sample was drawn largely from males, who are more likely to be users of any drug. An earlier study of 275 College of Micronesia students (Edman, 1980), for example, revealed that 34 percent used marijuana on occasion. A survey of Saipan junior and senior high school students showed 22.5 percent had used pot in

1987, a drop from 1984 when 34.8 percent smoked marijuana "sometimes." (Lord, 1984; 1987). In the 1993 FSM survey of students between 12 and 18, the Chuuk percentage of marijuana users was still at 20.3 percent, about the same as the FSM as a whole. Kosrae, however, showed only 13.5 percent youth users (Reed, 1993). A 1993 CNMI survey of high school students identified 24 percent as at least monthly users of marijuana (Anon, 1994). The samples in all of these surveys are open to various interpretations, but they offer interesting insights. The percentage of occasional marijuana users on Chuuk probably remains rather constant over the last 10 years, as Oneisom claimed in our 1995 interview. The Chuuk percentage of users is similar to that in most other parts of Micronesia (Saipan, Yap, Pohnpei). Oneisom's study found pot smoking to be largely among males, and this is confirmed in Marshall's later study (Marshall, 1991). The gender association for pot matches that for alcohol: men smoke and drink, women significantly less so.

What also persists is a widespread belief that marijuana smoking is relatively harmless. Keith Evans could report from Palau in 1987 that "It is clear that marijuana is not perceived to be a problem substance by users or law enforcement officers. Marijuana is grown openly in Palau" (1987, p. 16). We have found the "is-not-harmful" myth to be still as widespread among high school students today as Oneisom had seen in 1985. But since 1985 more studies have established the long-term physiological effects. If compared only with smoking tobacco, "Tests have shown that marijuana smoke contains 50 percent more carcinogenic hydrocarbons than tobacco smoke" and "the increased cardiovascular workload induced by marijuana consumption poses a potential threat to persons with hypertension, cerebrovascular disease and coronary atherosclerosis" (Marshall 1991, p. 358).

In short, Oneisom's 1985 study remains relevant because the patterns he describes remain true for Chuuk and other parts of Micronesia, even though there has been much change in U.S. patterns of pot smoking during this same period.

Methamphetamines ('ice') in the Marianas

[Another report], "Chilling the Pacific," comes from a Saipan-based clinical psychologist with first-hand experience in dealing with ice addicts. Dr. Michael Mason makes alarming claims about the social impact of ice addiction on the family structure and social fabric.

The authors of these studies each deal with a different effect of drug abuse. As mentioned before, Mason stresses the impact on family and even an entire culture. Although Oneisom describes marijuana dealing on Chuuk as often being a family business, he does not say much about its impact on the family or the extended family; he focuses on the cultural setting of pot smoking. Ice appears to produce a more violent result than marijuana, but both may be linked to thefts for the cash to continue the habit. There is a correlation between increased drug use and violent crime. Methodologically, however, it is very difficult to verify the precise causal relationship between individual drug use and its impact on others. It is certainly tempting to say that the recent rise in burglaries on Guam and Saipan is because users need money for high-priced drugs.[2] Certainly some of the increase in violent crime is a side effect of high prices for ice. Spouse and child abuse centers are recording new admissions because husbands or fathers are on drugs. But causal correlations are hard to prove. The exact cost in human suffering is impossible to measure; perhaps all we can do is paint the broad outlines of the cultural and social cost, as Dr. Mason does for Saipan.

These articles as a 'sampler' of drug problems in Micronesia

Together, these articles are only a sample of drug abuse in Micronesia. An article like Oneisom's could have been written about marijuana in Palau; one like Mason's could be written about Guam. Historically, drug use has trickled into Micronesia after first becoming popular elsewhere. And although the sheer amount produced or imported in Micronesia is minuscule compared to

traffic in Hawai'i or the West Coast, Micronesians might look to those bigger spots for clues as to what will happen next, in 1998 or 2000.

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Marijuana in Chuuk

Innocente I. Oneisom

When Innocente Oneisom conducted this survey for Micronesian Seminar in 1985, he was the coordinator of Youth Link and was well known for his writings on Chuuk and for the radio programs he wrote and produced. This report was originally circulated by the Micronesian Seminar and later published as an occasional paper of The Micronesian Counselor *(1991). It appears here with notes, references, and selected readings added by the editor. Oneisom is now a senator for Chuuk State in the FSM.*

Introduction

This report, the outcome of a five-month study done in 1985, looks into the problem of marijuana on Chuuk. Because the objective of this study was exploratory—to gather as much information on marijuana as possible—we formulated three different questionnaires to canvass a wide sample of the population. One set of questionnaires was for habitual marijuana users, those who smoke now, as well as those who regularly smoked in the past and have now given up the habit. Another set of questionnaires was for the non-users of marijuana, people who never smoke the material or those who tried it only once and have never picked it up again. The last set of questionnaires was for the dealers, those who make marijuana a source of income. If a person had ever at any time, even for a few days, sold marijuana, he was considered a dealer.

The respondents of the survey were picked randomly.[3] There are no criteria for picking the subjects except that they be cooperative and willing to answer the questions asked of them. The study was done on the lagoon islanders, although some of the subjects were outer-islanders residing on Moen.

For a good part of the first month of the study, marijuana information was gathered from the government agencies dealing with illegal substance control. These agencies include the Public Safety Department, the Chuuk State Court, and the Chuuk State Legislature. During this time, information was also gathered based on observations and casual contacts with the Chuukese people.

Maruo

Marijuana is best known to the people of Chuuk as *Maruo*. It is interesting to note that marijuana, as a name, has a feminine ending, but *Maruo* is a male name. It is sometimes referred to as the "different" cigarette. Marijuana is a pretty new item to the Chuukese people. Its newness and foreignness are evident in the many vocabulary words that the Chuukese use in association with marijuana. They include such words as "joint," "wrap," "tops," and "seeds."

It is said that marijuana was first introduced to Chuuk by a foreigner who resided on Nama Island toward the end of the 1960s. The person is reported to have had in his possession some marijuana seeds that he sowed and that later grew into healthy plants. By the early 1970s there was a small amount of marijuana filtering into Chuuk. The substance was brought in by students from Palau, Yap, and Saipan who were attending school in Chuuk. As early as 1973, marijuana seeds were brought in from Saipan by a sailor on one of the cargo ships. They were planted on one of the lagoon islands and grew to be extremely healthy plants. It was not until the late 1970s that marijuana invaded the islands in large quantity. With much improved means of communication and transportation, and the increased number of Chuukese leaving the islands for school, marijuana found new and effective means of entering the area.

Today marijuana, grown on every island in Chuuk Lagoon and smoked widely by Chuukese youth, is a common and well-known item. This is well illustrated in the following incident:

> *Three young boys were drinking coconuts by the road. On approaching them, I asked if I could have one. The youngest one, who was completely naked, probably about the age of 5 or 6,*

readily offered me one. The other two kids were probably about 10 or 11. Just as the 5-year-old handed me the coconut and the machete, I smelled the odor of burning marijuana. I then asked how it was that I could smell marijuana. One of the older boys said that his friend, the other older boy, had just finished smoking some. Giggling, the 5-year-old said it was true. I turned to the younger kid and asked if he smoked. To that he said no. I then asked him if he knew what marijuana was. He quickly replied yes to the question, as though he could not believe I asked him that question. As if to prove his claim, he went on to say that it is like cigarettes which you smoke and then you get "stoned." I asked him what "stoned" meant. He responded by saying that it is when a person laughs and giggles all the time. He then ran off upon seeing that other people were approaching us.

This incident shows that even a five-year-old knows what marijuana is and what it does. Yet, the child must have had some idea that what he was talking about was a bad thing because he stopped what he was talking about and ran off as soon as other people began gathering.

Marijuana and the law

The Chuuk State Government does not have its own laws and regulations regarding marijuana, or for that matter any illegal drugs or substances. There is a plan to enact legislation soon, according to a legal aid at the Chuuk State Legislature. The Chuuk State Government simply adopted the Federated States of Micronesia Criminal Code, formerly the old Trust Territory Code. It was enacted in 1980 as part of the FSM Code.[4]

In this code it is specifically stated that possession and trafficking of marijuana is illegal. Possession of an ounce or less is punishable by a fine of not more than $50. To possess from an ounce up to a kilo, or 2.2 pounds, is punishable by imprisonment of not more than three months, a fine of $500 or less, or both. Possession of more than a kilo of marijuana is punishable by imprisonment of not more than a year, a fine of not more than $1,000, or both. Possession of the same amount is presumed to constitute the crime of trafficking, because it is assumed that this quantity is

too much for personal use. This is therefore punishable by imprisonment of not more than five years, a fine of not more than $5,000, or both.

The records at Chuuk Public Safety Department indicate that marijuana is a crime that has been increasing yearly. Records show that the first reported case of marijuana took place on Moen late in 1978 when one plant was uprooted. In the following years, the total police raids recorded are:

1979	3 cases
1980	8 cases
1981	13 cases
1982 (for 4 months only)	8 cases
1983	not available
1984	36 cases

This information is based on the individual police officers' daily reports, which, unfortunately, yield different figures from the monthly reports. The daily reports do not mention whether the offenders were arrested or not. The monthly reports do. Regrettably, however, the monthly reports only cover 1983 and 1984. They show the following:

Year	*Reported Cases*	*Number Arrested*
1983	30	26
1984	56	40

One valuable piece of information that the officers' daily report provides is the quantity of the confiscated substance. The officers' reports did not assign any cash value to the confiscated substance, but they did give the number of plants and weight of the substance. Based on the information given by the dealers and the quantity of the substance recorded in the daily police reports, we have calculated the estimated street value of the confiscated marijuana. According to the dealers, a mature plant (four to seven feet tall) when sold as a whole plant brings in an average of $250. A mature plant, according to our rough calculations, would produce 12 ounces of marijuana.

During the five years from 1979 to 1984—excluding 1983, for which there are no reports—about $105,000 worth of marijuana was confiscated. This is an average of $21,000 worth of marijuana per year.

None of the individuals arrested on possession or trafficking charges have ever been convicted and very few have even been brought to trial.[5] The Clerk of Courts told me in response to my inquiry that as of July 1985 there has not been one marijuana case tried at the state level. According to a source associated closely with that department, however, there have been three cases that have reached the court system on the state level. One has been adjudicated and two are still pending. The one marijuana case that has gone through the court system reached the Supreme Court on July 9, 1982. The offender was charged with trafficking and possession of a kilo or more of marijuana on April 26, 1981. This was the only case of marijuana tried by the FSM Supreme Court in Chuuk. This particular case was dismissed on the grounds that the FSM Supreme Court did not have jurisdiction over the case.

Marijuana as a source of income

The study does not find enough evidence to assert that the Chuuk marijuana crop is being shipped or sold outside of Chuuk. Nonetheless, in the late 1970s and early 1980s, marijuana was reportedly sold to the Marshall Islands. People say that the Marshall Islands crop lacks the extra "kick" of marijuana from Chuuk, or from Yap and Palau.

It seems that marijuana from Palau, Yap, and Saipan has been shipped into Chuuk since the 1970s. There are reports of two marijuana dealers who held responsible positions in the Chuuk government in 1976. At this time, the limited supply of marijuana in Chuuk was unable to meet the growing demand for the substance. Moreover, the marijuana imported from Palau and Saipan that these individuals were selling contained the extra "kick" the smokers were seeking. Consequently, the price was high—$2 per joint and $10 per plastic sandwich bag, later raised to $20 per bag as the demand increased. The Yap crop, which comes into Chuuk regularly, is reported to be just as strong as the Palau and Saipan crop. A former dealer tells that a plant would cost him between $50 and $150 in Yap. He would stuff a briefcase with marijuana and sell it, now wrapped into joints, in Chuuk and would bring in an average of $1,000. This fellow is the only one in Chuuk who

had a whole network of dealers. His dealers went around the islands of the lagoon, especially Moen, selling marijuana joints. In an effort to keep up the interest of his dealers, he gave a 10% commission to each of them who sold 50 joints. The most successful dealers were also given a bonus—a plastic sandwich bag of marijuana weighing about an ounce for their own use. His business prospered from 1979 to 1982, when he finally joined the *Mwichen Asor*[6] and so took a religious pledge to discontinue his business.

On the whole, marijuana as a business is done very poorly.[7] Mostly, it is a family undertaking, not a professional one. Many of the dealers who cooperated with us in providing information sell marijuana on a part-time basis. Some do so for a year or two, and others for a couple of months only. There are others, however, who have been fortunate enough to gain the publicity necessary to do well in the business.

> *It was about one o'clock in the afternoon on a payday Friday on Moen. I walked up to two young men wrapping joints of marijuana. I sat down by them and we talked while they went about their business. After talking about some unrelated topics, I asked them how much they made a week. One of them answered, "$80 a week." I commented that that was a lot of money. He smiled, and as if quickly embarrassed, he grabbed the marijuana and the Zig-Zag wrappers and stuffed them into his backpack. He stood up and told his friend that they would have to finish wrapping later on. They did not leave the area. Neither did I. I hung around, observing the transactions which began the minute the two young men walked into the open. Apparently, they already had wrapped a lot of marijuana joints and had stored them in the backpack. I sat back and counted 22 people buying marijuana joints at $1 a joint in the one hour that I hung around the area. At least $20 was collected during this hour, with some of the 22 customers buying more than one joint each. These two young men are at it every day of the week except on weekends. This makes me question their claim that they make $80 a week; they seem to be doing much better business than that.*

A marijuana dealer makes an average of $100 a week, according to self-reported information in questionnaires completed by 15 marijuana dealers ranging in age from 17 to 32 years. Some of the dealers claim that they make more than $150 a week—a claim that is quite possible if the business is based on Moen. The dealers on the other lagoon islands say they make an average of $50 a week. These dealers either grow their own stuff or buy plants from others. These plants are purchased at $150 and up, and are then wrapped and sold as joints. It is estimated that these dealers bring in a profit of 100 percent to 200 percent on their product. All except one of the dealers claim that the marijuana business has helped them in covering the expenses of their daily needs. It has helped them in the purchasing of kerosene, canned goods, soap, mosquito coil, and cigarettes. Those who really do well in the business have been able to buy outboard engines, generators, tape recorders, and motor bikes.

Marijuana and the people

In the study I interviewed 121 people ranging from age 12 to 72. The breakdown of the interviewees is as follows:

	Males	*Females*	*Total*
Users	58	3	61
Non-users	21	23	44
Dealers	14	2	16

Twelve of the 44 non-users have tried the drug at some time or other. Although we cannot give a number or percentage of people who have come in direct contact with marijuana, we can say with certainty that a great majority of the interviewees have had some contact with it. Not a single one of the interviewees expressed lack of knowledge of the drug.[8]

Eighty percent of the interviewees believe that marijuana smoking produces certain side effects. These are, in order of the frequency with which people listed them: "craziness";[9] absentmindedness; laziness; reproductive process impairment; physical handicap; overeating; high blood pressure; damaged nerves; irritability; being lost in dreams; and affected lungs. "Craziness" is thought to be the most common side effect of marijuana smoking, as indicated by 22 percent of those interviewed (users and

non-users only). In fact, this factor is cited as the main reason those who have given up smoking finally quit. It is also given as the reason that 16 of the 44 non-users of marijuana do not use the drug. In describing what they mean by "crazy," some of the interviewees have mentioned "keeping silent," "feeling abnormal about oneself," "visualizing things," and "being afraid of people."[10] It might also be noted that several of the recorded Chuukese psychotics regularly use marijuana, according to a survey done on mental illness.

Another of the perceived side effects of marijuana is laziness.[11] It is this that has caused some of the regular users to break the habit. Others, who continue to use marijuana, say they prefer taking the drug only at night when they are resting. This is especially true for the older members of the group who have families to take care of or who are responsible members of the community.

Interviewees claim that besides other substances like gasoline fumes and spray paint that are used to produce a "high," they know of other, stronger drugs.[12] They mention cocaine, heroin, opium, hash, LSD, pills, and Speed. Five percent of those interviewed claimed that they have tried gasoline sniffing, and one individual expressed his preference for the gas fume's high over the marijuana high. Six percent of the interviewees have heard that heroin is used in Chuuk but have not tried it. There is one person who claims he has tried cocaine while in Chuuk. There are two others who have tried heroin and hash, but they did not say where they experimented with these drugs.

Marijuana is seen as the second most common problem of Chuukese youth, after drinking of alcoholic beverages. When the interviewees were asked whether they preferred alcoholic beverages or marijuana, 45 percent said they prefer taking both, 35 percent prefer alcoholic beverages, and 20 percent prefer taking marijuana. Most teenagers—about 70 percent of those interviewed—prefer marijuana over alcohol. Although alcohol is very different from marijuana in many respects, the two drugs have at least one thing in common—they are used in a similar way. That is, they are consumed in the typical Pacific island consumption pattern. However much there is of the substance available, it must be consumed totally. Nearly half of the regular users of marijuana

admit to following this consumption pattern in their own use. The quantity smoked can range from a single joint to a plant. In most cases, the users smoke in a group. In fact, one of the reasons given for smoking marijuana, especially for the first time, is peer pressure. All those interviewed who are now regular users admit that their initiation into marijuana smoking was never done alone, but in the presence of others.

The majority (67 percent) of the regular users said that they first smoked the substance to satisfy their curiosity about it. For most of the users this led to the regular consumption of the substance, for they have, in their own words, "liked the high," "gotten the feeling," "felt relaxed," "felt happy," and "found pleasure."[13]

Summary

Marijuana is currently a widespread substance in Chuuk. It is not a native Chuukese crop, but first found its way into Chuuk in the late 1960s and became extremely widespread in the later 1970s. From 1979 to 1984 an average of $21,010 worth of marijuana was confiscated each year. For something as widespread and illegal as marijuana, one would expect to find records of many cases in the government judiciary system. Yet, it is surprising to find that there is only one recorded case in Chuuk's courts.

Although there is much buying and selling of marijuana on the local level, little, if any, of the Chuukese crop is sold outside Chuuk. On the other hand, there is strong evidence that Chuuk imports the substance from other areas of Micronesia. The marijuana business in Chuuk has not adopted a professional system, but it remains more of a family venture in which the family members cooperate in growing and selling the substance. The money that comes in is used to provide for the daily needs of the family.

More than half of the regular marijuana users first smoked the drug to test the substance that they had heard so much about. It is feared that the people who have heard of other substances besides marijuana might do the same with these other substances. The majority of the interviewees have heard of the other substances, but very few have actually tried them. This could be attributed to the very small influx of these substances up to the

present. Many of the people interviewed believed that "craziness" was a side effect of marijuana smoking. This belief has led many of them to avoid the substance.

Author's Notes

Two other researchers have studied marijuana use in Chuuk. Bruce Larson's work (1987), which focuses on the subculture of pot use in Chuuk, largely complements Oneisom's. Mac Marshall's first study (1979) was based on field work conducted over 20 years ago; he returned for additional extensive fieldwork in 1985 and conducted a brief series of on-site interviews in 1995. Marshall used both the observation and interview techniques of anthropology (1979) and the more statistical, epidemiological methods of health science workers (1990). His works thus have the advantages of different sampling methods and of considerable time depth. Research data on marijuana use as far back as a quarter of a century ago exist for other Micronesian islands and atolls, but the works of Larson, Oneisom, and Marshall give us a richer, more in-depth, and better long-term view of pot use in Chuuk. This certainly does not mean that marijuana use is heavier on Chuuk or that it is more of a social problem there than elsewhere in Micronesia.

We find the general English language literature on marijuana difficult to summarize, simply because there is debate on every issue involving pot—except perhaps that teens should not be smoking it. The pot debate may go the way of alcohol prohibition. Pot smoking may eventually gain enough acceptability to take marijuana off the controlled substance list, but we doubt that this move is coming soon. The American literature clearly shows that pot is still a potent symbol, even a national icon of the left and the right, the conservatives and liberals.

The English language literature on pot has shifted from the 1960s alarmist cries of "burned-out brains" to pleas for legalization and arguments for the positive medicinal value of marijuana (see Grinspoon & Bakalar, 1995; Sullum, 1993; Voelker, 1994), although an equally vocal opposition insists the health hazards are real and strong (see Hearn, 1995). At the first National Confer-

ence on Marijuana use, U.S. Human Services Secretary Donna Shalala insisted that the message to young people must be that "marijuana is illegal, dangerous, unhealthy and wrong" (as quoted in Dorgan, 1995; see also Anonymous, 1995).

There is, on the other hand, considerable alarm in the literature on the recent rise in teenage use of pot (Ravage, 1994; Wickelgren, 1994). One fear is that pot is a "gateway" drug to stronger substances (Anonymous, 1994). Another fear is that teenage use stunts the adolescent growing experience: Teen pot users take a flight from reality to a dream world precisely at that period in life when the adolescent should be confronting reality (Tunving, 1985).

Curiously enough, precious little popular literature deals with the bad effects of long-term chronic marijuana use, although the medical journals abound in such studies. The National Institute on Drug Abuse (NIDA) claims that pot irritates the lungs; impairs learning, perception, and judgment; and diminishes drive and ambition (Dorgan, 1995). But whether the question is damage to the brain or impairment of psychological functioning, there is controversy. Most studies agree that chronic use damages short-term memory capacity (Schwartz, 1991; Deahl, 1991), and a significant correlation between marijuana use and schizophrenia is noted (Leon-Carrion, 1990). Doctors are not in complete agreement regarding many other neurophysiological effects (e.g., brain damage).

Psychological effects similar to those popularly described by Oneisom and NIDA are also claimed, psychotic reactions ("feel like I am going crazy") and a amotivational syndrome ("laziness") being the most noteworthy. But here again, the doctors are split. Winger et al. (1992, p. 128), for example, insist that "Laboratory studies have not produced any evidence for an amotivational syndrome . . . ," but Maugh (1974) describes the case for it. We suspect that this and similar debates about pot will continue because the war on drugs has politicized the issue. After all, what agency is going to fund a study to show the harmless effects of pot after the U.S. has spent billions ferreting it out of all the Americas and imprisoning its dealers and users?

Readable summaries on marijuana are Chapter Seven of Winger et al. (1992) and Cohen (1981, 1986). A popular account of the controversy between NIDA and the medical experts is nicely summarized in Dorgan (1995).

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Chilling the Pacific: Ice in the Commonwealth of the Northern Marianas (CNMI)

Michael Mason

Ice—the great stimulant

Crystal methamphetamine is what I refer to. Although it is not a new drug, it is relatively new out here.[14] Put rather simply, it is a very powerful stimulant, activating a number of systems within the body so that users become highly energized.[15] Compared to cocaine, ice is a much more powerful stimulant. It can be injected or smoked; most users on Saipan smoke ice. Users describe it not as a high but a pleasant feeling. Ice produces an enormously pleasurable state of hyperalertness that can last for eight hours from a single hit.[16]

Three stages in use

We find that users can move through three different stages. The first stage is recreational and occasional use at parties or gatherings. This stage introduces the user to euphoria and feelings of well-being. Ice causes chemicals of the central nervous system to be released in great quantity, and this produces the euphoria. With this mood alteration also comes increased alertness and renewed energy, quite an attractive package for tired or bored workers. Here is a description of the euphoria that fits our CNMI users at this first stage:

> *Ice is not a drug that makes you high. It doesn't make you drunk like alcohol or stoned like pot. It doesn't give you a rush, take*

you on a trip, or even bend reality. In the beginning, before the toxic effects build, the thing that ice does is make you feel bright, awake, happy. You feel good about yourself, no matter how bad things may be. You can work and produce on ice, be rewarded for your efforts. You don't mind getting up in the morning. You don't care anymore that your job is boring or that your boss is a schmuck. You see the goodness in others. You see your place in the universe and the golden possibilities of things to come. Just a few hits of ice and all is well; you can get on with the life you already own. (Sager 1993, p. 57)

At the second stage, what I call aggressive use, the feelings of euphoria continue but usage shifts from occasional to being a part of the user's lifestyle. At the first stage, ice is helpful in mood elevation; at the second stage, it is needed to keep that mood elevated to the euphoric state. Obviously, we are here moving into dependence and addiction. Family members tell me that the users now spend much time away from their families—something quite foreign to Chamorro culture—and associate only with other drug users. Users tend to go on binges to maintain the state of euphoria.

At the third stage, users become violent. Their behavior would be classified by a psychologist as paranoid schizophrenic, delusional, and psychotic. The paranoia is particularly noticeable. The simplest events and occurrences are interpreted as a threat, as someone spying on them. An ordinary parked car becomes the police watching, etc. A user from Hawai'i described the paranoia this way: "It's like whatever I'd be doing, the voices would tell me what I was doing. . . . It would be your thoughts but in somebody else's voice. Or I'd think something, and then they'd say, 'Oh, I heard what you just thought.' They were playing with you. They were always teasing you. Sometimes you think it's your friends. Sometimes you think it's undercover" (Sager, 1993, p. 56).[17]

Ice became popular in Saipan around 1990. The behavior patterns which fall into the three stages have been very difficult for us to deal with at the clinic. For example, when users move into the binge use of stage two, they typically go on two- to four-day bouts, then go off the stuff and sometimes experience very serious depression.[18] Another pattern which we are just starting to

encounter is the use of other drugs to get the user through the depression of the down cycle. If a user has been alert for two or three days, the body sometimes revolts and demands to rest and eat. Users will then develop a secondary addiction to a drug which will calm them down enough to get some sleep. We are now seeing this pattern more and more. Valium is commonly that second drug.

What concerns me most as a clinician are users in the third stage of use, that is, the twilight zone, the schizophrenic-like state. It is not clear what will terminate that state, if anything can. Some literature suggests that some organic processes may change permanently, although it is not clear what areas of the brain are affected. The long-term effects are a real unknown to us. One of the most alarming aspects of ice is that users can progress through the three stages very quickly. [The move from] recreational use to paranoid psychotic state can occur within a year.

The high price of pleasure

Associated with the increase in ice usage is a rise in violent crime in Saipan—murder, crimes against property.[19] The reason is clear: Ice is very expensive.

One gram goes for approximately $1,000 on the street. A gram is a very minuscule amount, but it is enough to give six or seven users a high for eight hours or so. On the other hand, ice is very cheap to make. That same gram can be manufactured, and manufactured very easily, for only $3 to $4 per gram.[20]

The price in 1994 came down to about $400 a gram, perhaps because there is so much of it on the street.[21] The demand is great but the supply is even greater, so the price came down. My educated guess is that with the recession in Japan, not as much cash is flowing into the CNMI, so the dealers can lower the price and still make a tremendous profit.

The Yakuza are involved.[22] They are very visible in Saipan and there are many indications that they are directly tied up with the ice traffic. As such they are a conduit for Hawai'i and the West Coast. Saipan, however, is only on the edge of a big market and big flow of drugs; some of the flow trickles down into the CNMI.

How much comes into Saipan is a real question. One estimate is about $20 million a year is consumed at street prices on Saipan. That is probably as accurate a figure as possible. Customs officers would like to interdict 10 percent of any drug coming into a given jurisdiction. In 1993 they interdicted $3 million. If in fact they seized 10 percent, then about $30 million at street price came into the CNMI in 1993.

Profile of users in the CNMI—societal repercussions

Who uses what comes in? Saipan has a population of about 45,000. The predominant indigenous ethnic groups are Chamorros (about 10,000) and Carolinians. Carolinians are not yet heavily involved in using ice, so clinically we deal primarily with the Chamorro population. Within that population, the users are mostly males between the ages of 25 and 45.[23] My estimate—and this is a very rough estimate—is that 800 of that age cohort have used ice. I estimate that 300 are at stage two: aggressive use. Now that might first appear as a rather small number, but on closer examination the societal repercussions are great. Those 300 males typically are heads of households, possibly the primary breadwinners of an extended family with 6 to 20 members. Thus, if an average of 10 family members are affected by each of the 300 males at stage two, then ice immediately impacts 3,000—almost a third of the Chamorro population. That is an awesome number. The impact is even greater because ice usage reverberates through the entire society. Many of the users are influential, powerful, rich, visible leaders of the community—directors and teachers.[24]

I would also estimate that there are about 20 in stage three: paranoid psychosis.[25] Some were still walking the streets in 1994. But these are not the people who come in for treatment.

Treatment and prevention

Users seek help only if driven, and that frequently means a judge. Most are not busted for possession. A highly placed user from one of the prominent families will be arrested for other offenses.

At the Commonwealth Health Center on Saipan, we are a very small complement of three staff clinicians. Very often I encourage abusers to seek treatment off-island. I do not believe that serious ice usage can be treated here on an outpatient basis. We do have an inpatient psychiatry ward, but it cannot be used for ice patients. In 1994, 90 percent of the mental health budget went to maintain this ward of six chronic schizophrenics who have been in the ward for 20 to 25 years. Ice patients cannot be put with the schizophrenics. The attending physician might typically give ice patients Haldol and put them back on the street. If they cause trouble, they are jailed.

Ice usage has begun to filter down below the 25 to 45 age group. In addition to the core group that has used ice for years, we now see cases from high school and some students from as low as the sixth grade.[26] As mentioned before, we really do not know the long-term effects of ice on an adult brain, much less on an adolescent brain.

The public school system on Saipan has initiated a recertification program so that all school counselors have to be certified and be trained for group therapy, peer counselor training, and just getting people to talk about their problems and express their feelings. We are using public media presentations to get information out to the population; we are developing programs of prevention, early detection, and primary prevention in dealing with high-risk students.

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For a general introduction to amphetamines, Winger et al. (1992) is concise and readable, as is Cho (1990). Two articles from *Rolling Stone* (Lovett, 1994; Sager, 1993) offer valuable descriptions by users of the motives and attraction of ice. Ramon (1994) tells the ice story in Saipan with attention to arrest records.

Endnotes

1. In Micronesia the drink itself is not exported, only the roots of *Piper methysticum*, which are pounded and strained at the

place of drinking. In other parts of the Pacific, *Piper methysticum* is exported as a fine powder.

2. A direct-link, causal connection between crime rates and drug use is always difficult to establish. Evidence certainly does surface, however, in individual cases. The *Pacific Daily News* of Guam, for example, reported on an FBI affidavit which describes the case of a Saipan woman pocketing $130,000 in bank money to buy ice (Dumat-Ol 1996).
3. Strictly speaking, this is not a statistically random survey; it is a convenience sample based on the researcher's knowledge of the community and the willingness of the users to cooperate. Although less statistically predictable than a random survey, this sample should not be written off as merely anecdotal. It is a sample based on participant observation and interview data. Mac Marshall used this method in his 1976 study of substance abuse in the Chuuk village of Moen (Marshall, 1979). In 1985 he again made a substance abuse study of Moen but based it on a broader, general population survey of 1,000 respondents, equivalent to 1/6 of the resident population of Moen. The sample was stratified according to age, gender, and residence, based on the 1983 census. The findings of the Marshall studies largely complement each other and are not at variance with the Oneisom study; Marshall's 1985 survey (1990), however), does pinpoint more precisely why people drink and use drugs. A common theme linking all these studies, including Oneisom's, is the dimension of social exchange and camaraderie in Chuuk drinking and drug use; it is not for loners, the solitary users.
4. Persistent pleas have been entered to legalize pot in the United States, at least since the hippies of the 1960s. The most recent pleas can be classified as the medical, the cost-benefit, and the recreational arguments. The leading voices for marijuana as medicine are physicians Lester Grinspoon and James Balakar, who make their case in a journal of no less repute than the *Journal of the American Medical Association* (1995, pp. 273, 1875, 1876). The cost-benefit argument is now championed by conservative standard bearer, William F. Buckley, Jr. (1996, pp. 34–48). He focuses on the great cost of the war on

drugs with its concomitant cost in human suffering: ". . . more people die every year as a result of the war against drugs than die from what we call, generically, overdosing" (1996, p. 36). Writes Buckley, ". . . it is outrageous to live in a society whose laws tolerate sending young people to prison for life because they grew or distributed a dozen ounces of marijuana. I would hope that the good offices of your vital profession [New York Bar Association] would mobilize at least to protest such excesses of wartime zeal, the legal equivalent of a My Lai massacre" (1996, p. 38; see also Shenk, 1995, pp. 32–36). The third argument, that from recreational users, is rather pragmatic: Pot is less dangerous than alcohol, is still widely used, despite war on drugs, and is as impossible to control as was alcohol through prohibition (see Sullum, 1993).

5. Although perceived as a problem, one wonders how seriously the problem is considered on Chuuk and elsewhere in Micronesia. Note that Evans (1987) raised similar questions about taking the problem seriously on Palau.
6. *Mwich* is the Chuuk word for an association; the religious *Mwich* have been particularly important in countering drug and alcohol abuse.
7. Here again is a significant difference with the United States. Pot growing and selling is big business in the United States. A corollary of the big business status is the corruption of law enforcement agencies by bribes and payoffs from dealers and distributors. Cops shake down dealers, steal their cash, and sometimes deal themselves. Even retired Kansas City Police Chief Joseph D. McNamara laments that "police scandals are the untallied cost of the drug war in the U.S.: The FBI, the Drug Enforcement Administration, and even the Coast Guard have had to admit to corruption. The gravity of the police crimes is as disturbing as the volume. In New Orleans, a uniformed cop in league with a drug dealer has been convicted of murdering her partner and shop owners during a robbery committed while she was on patrol. In Washington, D.C., and in Atlanta, cops in drug stings were arrested for stealing and taking bribes. New York State troop-

ers falsified drug evidence that sent people to prison" (Buckley 1996, p. 43). Thus, Chuuk appears as a remote paradise where the worst scenario is only widespread pot smoking. But the scene as described by McNamara is emerging elsewhere in Micronesia—in Guam and the CNMI, with recent arrests of cops using and dealing in drugs.

8. If the incidence of pot smoking on Chuuk has remained much the same since the 1985 Oneisom survey, as he observes a decade later, the same cannot be said of the U.S. Marijuana use among American high school seniors, for example, peaked in 1978 or 1979 and steadily declined since 1980 (Winger et al., 1992, p. 122), with a slight increase since 1991 (Winckelgren, 1994).
9. "Craziness," in Chuukese (*umwes*) carries a wide range of possible meanings that do not always coincide with the English word, as Larson noted in his study of marijuana use (1987).
10. These descriptions by Chuuk islanders correspond well to the known effects of marijuana. In particular, an "acute brain syndrome" can occur in which the user is disoriented and troubled by visual and auditory hallucinations. Users can also experience panicky and depressed reactions or "feeling abnormal about themselves," as Oneisom says, or feelings of transient paranoia, "being afraid of people" (Winger et al., 1992, p. 127).
11. In the academic literature, this laziness is described as the "a motivational syndrome" widely observed in pot smokers though not considered an inevitable consequence of marijuana smoking (Winger et al., 1992, p. 128).
12. The relationship between drugs is problematic in at least two ways. First, many users use several different drugs together or within the same day. The short-term and long-term adverse effects of multidrug use are not well known (Winger et al., 1992, p. 12). Second, tobacco, alcohol, and marijuana are claimed to be "gateways" leading to other drugs. The 1994 report from Columbia University's Center on Addiction and Substance Abuse cites the statistical relationship: 89 percent of cocaine users first used all three gateway drugs;

99.9 percent of cocaine users first used a gateway drug. Sixty percent of children who smoke pot before age 15 move on to cocaine, but only 20 percent of those who smoke pot after age 17 use cocaine. The report carefully states that this strong correlation does not establish causality but does offer a clear statistical message: "The younger an individual uses any gateway drug (cigarettes, alcohol, or marijuana), the more often an individual uses any gateway drugs; the more gateway drugs an individual uses, the likelier that individual is to experiment with cocaine, heroin, and other illicit drugs and the likelier that individual is to become a regular adult drug user and addict" (Morgan & Zimmer, 1995, p. 673). John Morgan and Lynn Zimmer, on the other hand, challenge the statistical relationship claimed by the Columbia University report. "The high risk factor obtained is a product not of the fact that so many marijuana users use cocaine but that so many cocaine users used marijuana previously. . . . The obvious statistic not publicized by CASA is that most marijuana users—83 percent—never use cocaine" (Morgan & Zimmer, 1995, p. 673). The debate thus continues on the "gateway" drugs. For Chuuk the problem of gateway drugs is not pot to cocaine or heroin because very little of these more potent drugs trickle into the islands, perhaps because of their high cost. But the problem of gateway drugs does apply to Guam, CNMI, and perhaps Palau. The problem on Chuuk, if indeed a relationship could be established, would be between gas-sniffing and marijuana. In fact, this may also be the growing pattern in the United States; that is, inhalants joining pot, alcohol, and tobacco as a gateway drug for young users. "Almost one-third of all Michigan eighth graders surveyed," for example, "say they have used an inhalant at least once" (Martindale & Miller, 1995, p. A10).

13. When Oneisom conducted his field work, the long-term physiological damage from regular smoking of marijuana was either not widely known or not accepted. It still may not be well-known in the Pacific. The awareness of the potential for physiological damage has come in those countries where tobacco smoking has first been viewed as a health

hazard. A higher percentage of Pacific Islanders smoke tobacco than in developed countries and many developing countries. Marshall's survey of Weno Chuuk found that 53 percent of the men and 11 percent of the women age 15 or over were smokers. Three-fourths of these smoke between 9 and 20 cigarettes per day (1993, p. 7).

14. Amphetamines have been used as stimulants for thousands of years. During World War II, synthetic amphetamines were widely distributed by the U.S., German, British, and Japanese military. After the war they were medically prescribed as dieting pills and became popular in the U.S. as pep pills (Benzedrine or "bennies"). A more recent version was called "speed." (See Cho 1990, p. 631; Sager, 1990, p. 57.)
15. The methamphetamines and their cousin, cocaine, are stimulants to the central nervous system, with caffeine as the least deleterious member of the group. Pot and inhalants, on the other hand, are depressants of the central nervous system, with alcohol as their legalized cousin (Winger et al., 1992). In street language the stimulants are "uppers" and the depressants "downers."
16. A journalist described in this way the great potential and advantages of ice over other drugs: (1) Price. Ice is cheap, and in some places cheaper than pot (this is not true in Guam or Saipan!). (2) Packaging. No needles and threat of HIV. (3) Smart marketing. It can be snorted, smoked (the Saipan favorite), or taken in pill form. (4) Performance. "You can work like a dervish all day and then rush to take care of the kids and still have the juice to party." (5) Long-term payoff. Hyperactivity, aggression, paranoia, violence—the qualities necessary to get ahead in modern America, the qualities paraded in our sports and entertainment (Hart, 1995, p. B1).
17. Pot smoking can also produce feelings of paranoia, but of a less serious nature. The National Commission on Marijuana and Drug Abuse found that "marijuana was usually found to inhibit expression of aggressive impulses by pacifying the user . . . and generally producing states of drowsiness, lethargy, timidity and passivity" (National Commission on Marijuana and Drug Abuse, 1972, p. 72, as quoted in Winger et al., 1992, p. 129).

18. The severe depression accounts, in part, for the addiction. The depression associated with coming down from (off) ice makes going back up with another hit all the more desirable. Tolerance to the drug grows quickly, so users up the dosage to get the same high (Lovett, 1994).
19. In the United States, law enforcement agencies associate ice with rising violence. In Phoenix, Arizona, police blame ice use for a 40 percent jump in 1994 homicides. In Contra Costa County, California, near San Francisco, police have found ice use a factor in 89 percent of domestic abuse cases (Walker, 1995, p. 3). Directors of child and spouse abuse centers on Guam have no hard and fast figures to offer but agree that ice is a factor in the cases they handle.
20. Federal and local law enforcement officials have not found [ice] production labs in Saipan or Guam, despite the simplicity of production. "If you've got a kitchen and a bathtub and some simple glassware, you can do it relatively easily," according to Purdue professor of pharmacology Dr. Roger Maickel. "It doesn't take a million-dollar lab" (Gillman, 1995). One wonders, then, why there is no production on Guam or Saipan, if production is simple and needs little more than a bathtub and sink. The problem is the residue, which is relatively easy to trace in drain water, especially on small islands like Guam and Saipan.
21. According to Federal law enforcement officials, the high street price has made Guam and Saipan a point of destination from both the West (Hawai'i and the West Coast) and the East (Japan, Korea, Philippines, and Thailand). Ice fetches a higher price in the Marianas; in California in 1994, for example, a gram sold for $100 to $150. Guam and CNMI can no longer be considered a point of transshipment elsewhere, according to the same officials. But recent literature still talks about Micronesia as a transshipment point (Marshall, 1993b, p. 270; 1993a, p. 12).
22. Federal law enforcement officials also find "localized" organized crime in the ice traffic, that is, local networks of Chamorros or Filipinos importing ice.

23. In Hawai'i, however, the loss of appetite and attendant weight loss associated with ice has attracted female users (see Sager, 1993, p. 53–57).
24. This fits the profile of users elsewhere. In Hawai'i, for example, users are described as mainstream, middle-class Americans, not the marginalized criminal types associated with other drugs (Sager, 1993, p. 57).
25. Cho (1990) notes that the amphetamine psychosis is similar to the more familiar paranoid schizophrenia and that some do not recover from the psychosis even after detoxification (p. 249).
26. A 1993 survey of three Saipan high schools identified 9.6 percent as having used ice (Anonymous, 1994). In the same year, 12 teenagers were treated for problems with ice at the Commonwealth Health Center (Anonymous, 1994).

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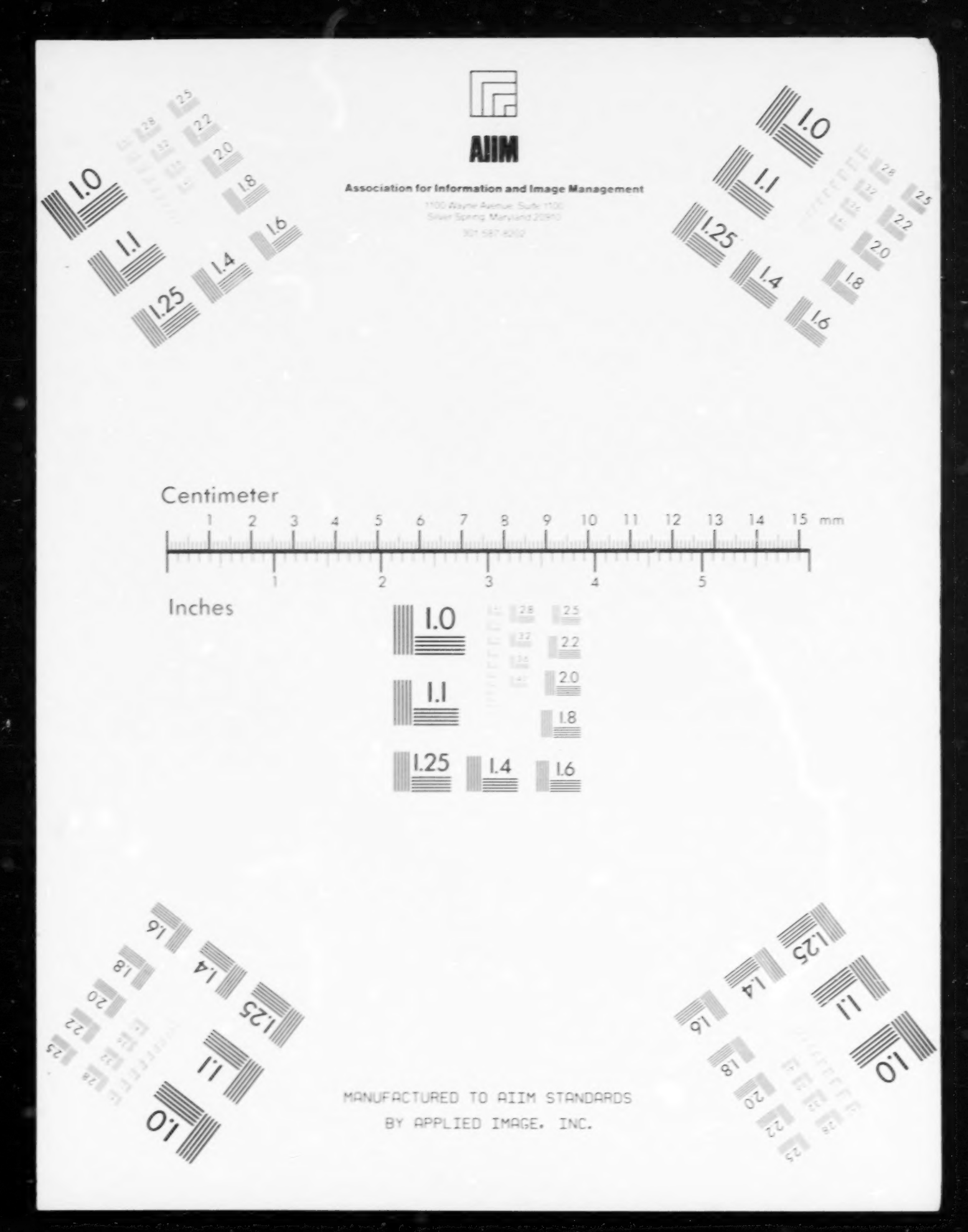
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